American Gas Association MONTHLY

Natural Gas Proves Vitality

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Educational Aid to Industry

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4-Purpose Contact for Sales

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Gas Wonderland Is Fair Hit

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Depreciation and Income Tax

June 1940

VOLUME XXII NUMBER 6

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AMERICAN GAS ASSOCIATION

420 Lexington Avenue, New York, N. Y.

American Gas Association MONTHLY

CONTENTS FOR JUNE 1940

Some gas men have been complaining about "conventionitis"—too many meetings—but we haven't heard even a whimper about the Houston natural gas convention. It was one of those spontaneously successful meetings that provided well-balanced doses of valuable information mixed with enough inspirational material to make it easy to take. Chairman Schmidt added to the enviable reputation of a long line of A. G. A. presiding officers by directing the meetings in a flawless manner and contributing a meaty paper which is partially printed in this issue. . . . Other parts of the convention covered in this issue range from the technical conferences to the educational and sales meetings, although some are mentioned all too briefly because of space limitations. . . . The Distribution Conference, held jointly with the convention, lived up to the high standards of the past. . . . Although conventions are an education in themselves, they can't supply the background of a formal education. Dr. Stephens herein describes how gas men can get that training at Penn State College. . . . We've been to Gas Wonderland at the New York Fair and are more than thrilled. Don't miss it!

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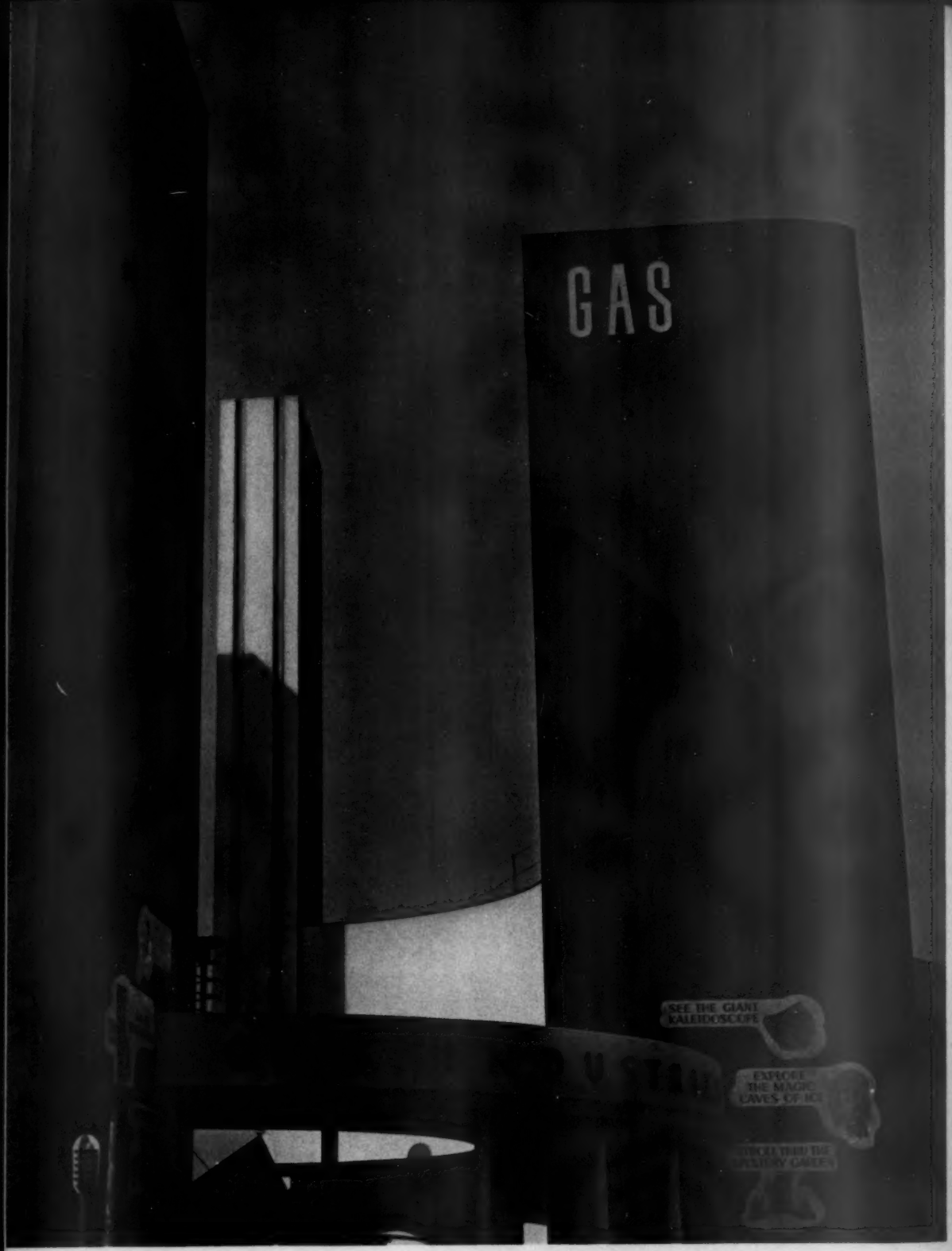

The Court of Flame entrance to Gas Wonderland—one of the 1940 New York World's Fair's most outstanding attractions.

American Gas Association MONTHLY

JAMES M. BEALL, *Editor*

HOUSTON CONVENTION
.... Natural Gas Industry Proves Its Vitality

WITH approximately 1500 delegates and an estimated total attendance of 2500, including guests, the twenty-fifth annual Natural Gas Convention and the seventeenth annual Distribution Conference of the American Gas Association, held May 6-10 at Houston, Texas, outstripped all recent meetings of the natural gas industry. Amid an atmosphere of aggressive optimism and confidence in the future of the industry, the delegates took part in eight separate conferences in addition to the general sessions.

The convention was divided into the following conferences, many of them being held concurrently during the five-day convention week: accounting, accident prevention, distribution, domestic gas sales, employee training and education, industrial gas sales, production and transmission. These meetings, taken as a whole, provided the greatest wealth of information on natural gas matters of any yet held by the Association.

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While speaker after speaker referred to the unparalleled expansion of the industry since 1927 and expressed satisfaction with this record, the general feeling prevailed that there was need for greater sales activity and more research. One entire general session was devoted to past research accomplishments and a new program projected for the future. Contributions in the field of transmission and production were particularly noteworthy. One of the most valuable and productive meetings was the symposium at which representatives of widely scattered areas pooled their experiences on the "Underground Storage of Gas."

Elmer F. Schmidt, vice-president and operating manager, Lone Star Gas Company, Dallas, Texas, as chairman of the Natural Gas Section and presiding officer, did an outstanding job of conducting the convention. He was ably assisted by A. B. Groesbeck, general manager, United Gas Corp., Houston, and Frank C. Smith, president, Houston Natural Gas Co., who were co-chairmen of the Committee on General Arrangements. Other convention chairmen were: Harry D. Hancock of New York, Program; K. L. Simons, of Houston, Housing; Walter Spears, of Houston, Entertainment; George D. Wilson, of Houston, Publicity; and Mr. Smith, Reception.

The gas companies of Houston, who generously placed their facilities at the disposal of the convention, were hosts Monday night at an informal reception for the delegates at the roof garden of the Rice Hotel. Tuesday a luncheon was held for the ladies at San Jacinto Inn and that evening suppliers of the natural gas industry were hosts at a stag open house. The concluding entertainment feature was the grand ball on Wednesday night at the Rice Hotel.

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Recognition of the advantages of Houston as the setting for the convention was contained in the report of the Resolutions Committee. The report said, in part:

"The natural advantages of Houston, with its background of historical interest to the natural gas industry, and its opportunities for conference with and between the various members of our industry and its related oil industry, together with the facilities for observation of all phases of natural gas from its origin to utilization, makes the holding of this convention a fitting climax to a year of effort and preparation."

The first general session opened Tuesday morning at the Rice Hotel with Chairman Schmidt presiding. Following a welcome address by Spurgeon Bell, assistant city attorney, representing Mayor Oscar F. Holcombe of Houston, the convention got under way with the Chairman's address.

Setting the keynote of the convention, Chairman Schmidt said that the natural gas industry, in spite of unusual restrictions, is moving forward at a mile-a-minute tempo toward a brighter future.

"The natural gas industry is a relatively young industry," he reminded his audience. "Its nation-wide expansion started in 1927. Research and technological skill, coupled

with free and private enterprise and a mobile monetary system in our national economy, helped the industry to open up the vast markets it now serves and to meet demand with adequate supply. And never before has the industry been more alert to its responsibilities and its opportunities.

"A glance at only a few of the organization's activities impresses us with the vast scale of its operations, and the alertness and vigor with which it is discharging its responsibilities."

A. G. A. Activities Reviewed

Chairman Schmidt reviewed the industry's national advertising campaign, now in its fifth year; the growth of home service; new technical developments; the research on new and improved appliances; and advances in sales promotion. He pointed out that the availability of natural gas is a powerful force in attracting new industries and extending old ones. The latter phase of the Chairman's address is covered fully elsewhere in this issue of the MONTHLY.

Supporting Chairman Schmidt's optimistic appraisal of the natural gas industry, Walter C. Beckjord, executive vice-president, Columbia Gas & Electric Corp., and president, American Gas Association, delivered a forthright address entitled "The Natural Gas Industry—100 Years of Progress." President Beckjord traced the progress of the gas industry from difficult beginnings to its present status. He said there has been an intensive development in the last eight years and tremendous increase in the efficiency of utilization of natural gas, allowing long-distance pipe lines to be laid to serve a greater number of people and industries.

Urging a broader program of public relations, President Beckjord said he did not think the gas industry had received the proper credit for its advancement or for the merit it had earned. While he praised the industry for its great development in the last few years, he warned against going too heavily in debt.

Highlights of President Beckjord's address are published in this issue of the MONTHLY.

Air Conditioning Program

One of the most interesting contributions of the entire convention was that on "The Company Program for the Sale of Summer Air Conditioning" by Charles R. Bellamy, chief engineer, gas department, Columbia Gas & Electric Corp. Mr. Bellamy, who is chairman of the Association's Joint Committee on Summer Air Conditioning,

The registration desk does a land-office business on Monday morning as the Natural Gas Convention gets away to a flying start. At the left are Walter C. Beckjord, New York, president, American Gas Association; D. B. Beecher, Pittsburgh; William Braymer, Stamford, Texas; and Dick Deakins, Abilene, Texas. On the right, signing on the dotted line, are Robert W. Hendee, Colorado Springs, past chairman, Natural Gas Section, and Major T. J. Strickler, Kansas City, vice-president of the Association, and chairman, National Advertising Committee. The center picture shows a section of the luncheon session on Monday

A prominent Houston trio looks the camera in the eye: E. S. George, W. S. Keenan, and Frank C. Smith, chairman of the Reception Committee and one of the principal speakers. The sober-looking foursome in the center consists of President Beckjord; D. A. Hulcy, Dallas; Davis M. DeBard, New York, chairman, Commercial Section; and Alexander Forward, New York, managing director of the Association. At right are: T. B. Gregory, Pittsburgh; Mrs. R. G. Soper, Dallas; R. G. Soper; and David Daly, Pawtucket, R. I.

Below—Elmer F. Schmidt, of Dallas, chairman of the Natural Gas Section, makes his opening address. Right—Speakers' tables during the Home Service Variety Show at the Monday luncheon meeting. In the picture are, left to right, front row: Nell Read, San Antonio; H. C. Thuerk, New York; Albertine Berry, Dallas; Chairman Schmidt; President Beckjord; Emma Wood, Lafayette, La.; F. M. Rosenkrans, Kansas City; and Alexander Forward, New York. Back row: J. H. Warden, Tulsa; E. C. George, Houston; Mary Alice Crosson, Lubbock, Texas; W. C. Grant, Dallas; Davis M. DeBard, New York; Evelyn Barton, Lake Charles, La.; and R. S. Agee, New York

reviewed the principles of summer air conditioning and presented the gas industry's program to capture this important market.

In addition to the increasing interest of all gas men in summer air conditioning, the following two developments were cited by Mr. Bellamy as of tangible value:

"During the past two years, the builders of gas-fired dehumidifying equipment have simplified the design of their apparatus while at the same time making substantial reductions in its sales price. As a result of these improvements, the markets for such equipment have been broadened.

"Simultaneously with these improvements has come development of several gas-fired absorption refrigeration systems for summer air conditioning. We now have three such refrigeration systems in a semi-commercial stage of development, and in addition there are two or three patented processes which, although still in an undeveloped stage, appear to offer much promise. Certainly we can point with pride to the progress that has been made in the technical and manufacturing side of the business."

A favorable fact for the gas industry, he said, is that the refrigerating load of summer air conditioning presents a more or less serious problem to the electric industry while it represents the ideal gas load.

During this pioneering period, Mr. Bellamy urged the larger natural gas companies who operate in sections of the country where summer heat and humidity is greatest to take the leadership in air conditioning work. With new and complete gas air conditioning equipment on the horizon, there should be no delay in adopting a policy of aggressive and concerted action by our industry, he said.

The plan of action recommended by Mr. Bellamy's committee calls for the employment of capable air conditioning engineers by from fifteen to twenty of the larger gas companies to study the problem from both the marketing and engineering standpoints. These men would study the gas equipment thoroughly, and then survey the possibilities of gas air conditioning in their respective territories with a view to making gas installations wherever they could be soundly engineered.

Speaking on "Institutional Advertising and Publicity," John H. Warden, general salesmanager, Oklahoma Natural Gas Co., Tulsa, described the pro-

An outstanding program brings smiles of satisfaction from three presiding officers—J. French Robinson, chairman, Production Conference; Convention Chairman Elmer F. Schmidt; and Vice-Chairman H. C. Hancock, who presided at the second general session. The speaker is William A. Dougherty, New York, who described Federal Power Commission procedure

All set for the business of the convention day—left to right: C. C. Bahr, New York; E. P. Barclay, New York; J. R. Overs, Cleveland; G. W. Travis, New York; and John A. Pennote, Dallas

gram of his company which has resulted in improved public relations and increased business. Under Mr. Warden's direction, the Oklahoma company has carried on a vigorous institutional campaign and is a recognized national leader in this activity. Part of this campaign was described in an article by Mr. Warden in the May issue of the MONTHLY.

An exhaustive study of Federal Power Commission Procedure Under the Natural Gas Act presented by William A. Dougherty, counsel, Standard Oil Company (New Jersey), New York, N. Y., completed the first general session of the convention. Mr. Dougherty, who summarized legislation affecting the natural gas industry at last year's convention, again presented a thorough and able analysis of his subject.

Role of Research

The major role of research in the present and future activities of the gas industry was brought home to the convention at the second general session which was devoted almost exclusively to this subject. H. D. Hancock, president, Gas Advisers, Inc., New York, and vice-chairman, Natural Gas Section, conducted this session.

In the initial address, Major Alexander Forward, managing director, American Gas Association, outlined briefly some of the most important undertakings of the Association. He praised the natural gas men highly for their fine cooperation in Association affairs and their pioneering spirit. Stating that a progressive industry would never allow its trade organization to be non-progressive, Major Forward said that the Association is "the organization of an essential, sound and progressive industry."

A highlight of this session was a review of the work of the Main Technical and Research Committee by Howell C. Cooper, of Pittsburgh, Pa., who as chairman of this group since its organization in 1922 has led a broad-visioned program of research on gas measurement, pipe line flow, gas well delivery capacities and other undertakings. In recognition of his outstanding leadership of this committee, Mr. Cooper was awarded the Charles A. Munroe Award in 1938 for having made the greatest contribution of an individual toward the advancement of the gas industry.

Permanent Committees Formed

After describing the origin of the committee and its early problems, Mr. Cooper told how the various subcommittees gradually became permanent institutions of the Association instead of disbanding after completing specified tasks. Thus, he noted, "for a long time past, all current problems relative to gas production and conservation have been delegated to the Gas Well Committee under the chairmanship of N. C. McGowen. In similar fashion, the Measurement Committee, directed by T. R. Weymouth, has for 15 years taken charge of measurement and technical matters in several other fields. A third group, under the leadership of H. D. Hancock, has presided for years over all problems relating to pipe lines, leakage from pipe lines, hydrates and allied matters." Stating that retaining men on committees on a permanent basis results in efficiency, Mr. Cooper strongly recommended continuance of this practice.

Referring to current work of these groups, he said that the Gas Well Committee is busily engaged today in developing facts relating to gas production from wells producing both gas and oil. The Measurement Committee is studying problems of dust removal at meters and elimination of vibration in complicated gas measurements. The Pipe Line Committee, he said, will soon have available new information concerning flow of gas through pipe lines, particularly relating to changes in temperature and hydrates. It also is guiding the formation of a Safety Code for gas pipe lines which is now being put forward by the American Society of Mechanical Engineers.

Stalwart Texans join the give-and-take sessions. Left to right: W. F. Wright, D. L. Cobb, Dick Minter, and C. K. Patton, all of Dallas

Getting the lady's viewpoint—W. W. Cotton, Wichita Falls (left); and W. O. Allen, San Antonio, interview Mrs. A. L. Bradford, Shreveport

Mr. Cooper also called attention to a new committee headed by George Parker, of St. Louis, which is compiling a list of all industrial uses of natural gas and information on methods of application.

The movement to establish a permanent institution for the conduct of fundamental gas research, described by a subsequent speaker, received Mr. Cooper's wholehearted support. He said: "Possibly, such deep studies may eventually evolve uses for gas unknown today, but it is reasonable to expect that such research also may be helpful in developing the application of gas in present markets. . . . This subject is pressing today and requires constructive thinking."

A forceful and eloquent presentation

of the case for the establishment of an independent Research Institute was embodied in an address by Frank C. Smith, president, Houston Natural Gas Company, entitled "Relationships of Fundamental and Applied Research to the Problems Confronting the Natural Gas Industry." The program advanced by Mr. Smith as chairman of the Committee on Fundamental Research was first outlined at the annual A. G. A. convention last year and reported in full in the November, 1939, issue of the A. G. A. MONTHLY. It is now going forward in the hands of the Research Institute Organization Group.

Mr. Smith pointed out that the natural gas industry was "in the unique position of serving a commodity to a market which has far greater knowledge of the constituents and uses of our commodity than we have ourselves."

"It seems to many of us," he said, "highly desirable and important that the gas industry shall know its product as well as or better than anybody else; that it shall take the lead in devising new uses for it; that it shall, if possible, utilize its by-products in addition to its heat energy; that it shall, in brief, view its commodity as a chemical compound of diverse elements and complex structure rather than as just simply something that burns.

"It may take some quiet, concentrated and solitary thinking to envisage the gas industry, by its adoption and support of an adequate research program, doing or being more than it does and is just now. But it is along this way that will be found the realization that new uses for gas may be found, developed and marketed. It has happened in a hundred other industries. Why not in the gas industry?"

Questions flew thick and fast as the gas experts were put on the spot at this popular "Gas Information Please" program during the Domestic Sales Conference. Master of Ceremonies Walter C. Beckjord, center, is flanked by the gas experts—(left) Major T. J. Strickler, J. G. Tooker, J. H. Warden and (right) R. C. Anderson, Jessie McQueen, and B. T. Franck

The steel industry, through research, investigation and development, has been and is contributing at an increasing rate to the progress of the gas industry, H. W. Graham, director of metallurgy and research for the Jones & Laughlin Steel Corp., Pittsburgh, told the convention.

"The whole of the modern industrial picture is a complicated and intricately interwoven fabric," Mr. Graham said. "No one industry can be self-sufficient and this is true alike of steel, gas, petroleum and all manufacturing and producing operations. And each industry benefits by the improvement of other coordinate industries, as the sum total of these improvements gradually raises the general level of achievements that are possible." Mr. Graham referred particularly in his talk to tubular products developed by the steel industry for the use of the gas industry.

The concluding address at the last general session was an authoritative review of "Improvements in Industrial Processes Through Advancement in Heat Application," by Henry O. Loebell, vice-president, Combustion Utilities Corp., New York. A feature of his talk was the chronological presentation of important milestones in the advancement of industrial gas such as the development of radiant tubes, etc.

At a luncheon meeting following the general session, D. W. Harris, vice-president and general manager, Arkansas Louisiana Gas Co., Shreveport, La., spoke on "Industrial Gas—What It Means to Us," and R. C. Morrison, director, Holland's Southern Institute for Town Service, Dallas, Texas, presented a paper on "Balanced Town Building."

Industrial men in the gas industry, Mr. Harris said, "have made outstanding contributions during the past two decades, and everyone will agree that this branch can point with pride to important improvements and revolutionary developments comparable with any other department of the business."

The convention program was rounded out with separate meetings on different phases of the natural gas industry. These meetings are reported elsewhere in this issue of the MONTHLY.

H. Carl Wolf, president, Atlanta Gas Light Company, standing beside a blow-up used to call attention to the company's Decade of Progress celebration. Mr. Wolf described this elaborate and highly successful program at the Domestic Sales Conference, in Houston, Texas, May 7.

You are invited to attend an Open House Exhibition of
Another Decade of Progress
Commemorating the Tenth Anniversary
of NATURAL GAS in Atlanta
Tuesday · Wednesday · Thursday
From 2 P.M. until 10 P.M.
ATLANTA GAS LIGHT COMP
See —
See —

Transmission and Production Sessions Solve Knotty Operating Problems

J. French Robinson

UNRAVELING knotty operating problems and throwing new light on natural gas transmission and production practice, the series of conferences devoted to these subjects were described as the most fruitful sessions of the entire Natural Gas Convention. Held in Houston, Texas, May 6-9, three afternoon meetings were allotted to transmission problems and a full day's meeting was taken up with production subjects.

George S. Young, vice-president, Michigan Gas Transmission Corp., Detroit, chairman of the Transmission Committee of the Natural Gas Section, presided at the Transmission Conference. The Production Conference was conducted by J. French Robinson, president, The Peoples Natural Gas Co., Pittsburgh, chairman of the Production Committee.

Pipe Protection Measures

Leading off the Transmission Conference, F. A. Hough, Southern Counties Gas Co., Los Angeles, described the results obtained with cathodic protection in territory of the California company. He was followed by W. A. Colley, general manager, Industrial Engineering Co., Bartlesville, Okla., who spoke on "Developments in Asphalt Mastic Coatings on Pipe Lines."

An authoritative discussion of the "Flow of Natural Gas in Rough Pipes" was presented by Raymond Ransom, Panhandle Eastern Pipeline Co., New York, N. Y. The first session ended with a paper on "Odorization Studies" by Thomas S. Bacon, Lone Star Gas Co., Dallas, Texas. Mr. Bacon revealed that the art of odorization of high pressure gas has progressed tremendously during the past five years. "The use of odorizers of all types," he said, "is entirely satisfactory on main gas transmission lines operating at pressures up to 500 pounds per square inch."

W. T. Bulla, Natural Gas Pipeline Company of America, Chicago, opened the second transmission session with an interesting paper on "Radio Communication for Dispatching and During Emergencies." Mr. Bulla gave a detailed description of radio apparatus used and showed pictures taken in the field.

Use of the "Go-Devil," that unique device for improving the efficiencies of natural gas pipe lines, was explained by C. H. M. Burnham, Panhandle Eastern Pipe Line Co., Kansas City, Mo. Emergency pipe line repair equipment was described by H. E. Smith, Natural Gas Pipeline Co. of America, Chicago.

The important study of gas hydrates being conducted by the U. S. Bureau of Mines in cooperation with the American Gas Association received further attention in a progress report by W. M. Deaton and E. M. Frost, Jr., of the Bureau's staff at Amarillo, entitled "Hydrates of Natural Gas, Pure Gases and Synthetic Gas Mixtures." Reports on hydrates have been presented each year since 1937 and include valuable information on this problem.

B. L. Rogers and O. H. Moore, Lone Star Gas Co., Dallas, in the first paper at the final transmission session, gave a comprehensive description of "Four Point Control in the Operation of the Four Cycle Natural Gas Engine."

Welding Large Pipe Lines

Reporting on "Large All-Welded Pipe Lines," H. J. Carson, vice-president, Northern Natural Gas Co., Omaha, Neb., said that improvements in welding practice and more efficient personnel have left little question regarding the strength and integrity of welds. "The more uniform wall thickness, sizing and squareness of pipe ends as furnished by manufacturers has facilitated welding in the larger sizes," he stated.

Analysis and control of transmission costs are of vital importance to the natural gas industry, J. H. Lang, Ohio Fuel Gas Co., Columbus, told the conference in a valuable paper on this subject. He emphasized the necessity of keeping *all* employees cost-conscious.

In the concluding paper of the transmission sessions, W. R. Beardsley and C. B. Abbot, of the Colorado Interstate Gas Company, Colorado Springs, gave the delegates the benefit of their long experience in the operation and maintenance of a natural gas transmission line from Amarillo, Texas, to Denver, Colorado.

The principal feature of the Production Conference under Chairman Robinson was a symposium on the "Underground Storage of Gas" which brought out a wealth of new information on this subject. It included reports of the experiences of a large number of companies who had pioneered in this type of gas storage. Much of this material is available at Association headquarters and anyone interested may obtain complete information at that source.

Those who participated in the symposium included: Carl U. Daniels, vice-president, Oklahoma Natural Gas Co., Tulsa; Fenton Finn, geologist, The Peoples Natural Gas Co., Pittsburgh; J. H. Isherwood, vice-president, North Penn Gas Co., Port Allegany, Pa.; Porter D. Mellon, general superintendent, Canadian Western Natural Gas Light, Heat & Power Co., Calgary, Canada; D. P. Hutson, operating manager, Equitable Gas Co., Pittsburgh; L. T. Potter, chief production engineer, Lone Star Gas Co., Dallas; E. O. Schillhahn, geologist, The Manufacturers Light & Heat Co., Pittsburgh; T. J. Tomkin, Jr., vice-president, Central Kentucky Natural Gas Co., Lexington, Ky.; and S. A. Chadwell, superintendent, gas control dept., The Ohio Fuel Gas Co., Columbus.

Mr. Chadwell stressed the following factors when underground storage was being considered: specific need, source of gas, suitable pools strategically located with respect to markets, existing transmission facilities and additional facilities necessary. He estimated that The Ohio Fuel Gas Company, through the development and operation of underground storage, effected a saving of $2,250,000 in capital expenditures. This saving, however, is exclusive of the investment cost of the gas placed in storage, he said.

The afternoon session of the Production Conference was confined to discussions of drilling and other natural gas well problems. C. E. Reistle, Humble Oil & Refining Co., Houston, Texas, opened the meeting with a paper on "Drilling Beyond the First Mile—with Rotary Tools." The same subject, dealing with standard tools instead of rotary, was handled by H. A. Wallace, Jr., United Fuel Gas Co., Charleston, W. Va. These papers were discussed by H. P. George, Southern California Gas Co., Los Angeles, and E. H. Tollefson, Hope Natural Gas Co., Clarksburg, W. Va.

A study of mixtures of separator gas and liquid from a combination well at Cayuga,

(Continued on page 240)

Convention Oomph

Somebody got up a unique idea to spread friendship and goodwill at the Natural Gas Convention. An attractive Houston girl, dressed for the part, and answering only to the name "Tiny Flame," strolled the convention halls just waiting for someone to ask her what it was all about. She explained it this way:

"I just walk around and radiate sunshine and good cheer. People ask me who I am, and I just answer 'Tiny Flame.'

"You've probably heard of Ready-Kilowatt in the electrical industry and Johnny on a cigarette program?" she asks.

"Well, I'm supposed to epitomize the gas industry like they do in their respective businesses," she explains. "I personalize the gas industry to the public."

Sorry, she wouldn't tell her name but she is said to be an art student at the Houston Museum, who won two scholarships in 1938 and 1939.

Years of Progress . . . *Natural Gas*

History Is Fairy Tale Come True

By WALTER C. BECKJORD
President
American Gas Association

THE rise of the natural gas industry to its present high status seems to me one of the brightest spots in the industrial history of the U. S. It is like a fairy tale come true. When you consider that in the brief space of time of which we have records for production and sales from 1906 to 1938, the sales of natural gas have increased from 382 million to 3½ trillion, it is really a remarkable development. Covering the U. S. with transmission lines in the face of many physical obstacles, and the early financial history which was not too prepossessing, it certainly illustrates the faith, courage and ability of gas engineers and executives who have fostered this work throughout the years.

The modern transmission line of today is almost a perfect piece of construction, subject to interruption only by floods and other catastrophes, which as a matter of fact, while they do occur from time to time, methods have been developed to provide safe service even over and above these hazards.

SERVICE has come to be the watchword of the industry, and long records of continuity of service in lines over 1000 miles long are the accepted thing in this country today.

The skill and ingenuity of these same pioneers and American engineers has made possible the transmission of heat in the form of natural gas thousands of miles over this country, and is now available in 34 States, covering practically the entire area of the United States, save the New England States, part of the eastern Seaboard and the northwest Pacific States.

Excerpts from address before Natural Gas Section Convention, Houston, Texas, May 6-10, 1940.

There has been an interesting development in eastern Pennsylvania where an entire steel plant has been converted to the use of natural gas in soaking pits, open hearth furnaces, rolling mills, cutting the steel plate, 40" thick, and all the other kindred uses. This company uses about 15 to 18 million cubic feet per day, and between 4 and 5 billion per year. It is interesting to note this company uses as much gas approximately as the entire City of Washington does for mixing purposes, but with a demand of only about 60% as great, thereby illustrating the much higher load factor.

The great advantage that long distance lines have in the distribution of gas is due to the fact that the line can be packed up to a higher line pressure, thereby storing great quantities of gas available for short-time peaks. The 1200 mile line to Detroit consisting largely of 22" and 20" pipe can store approximately 300 million feet of gas, whereas, the maximum day is on the order of 200 million feet, so this gives quite a leeway in meeting short-time peaks although naturally for the long pull once the line pressure is pulled down you cannot build it up in a short time.

The growth of natural gas lines throughout the country has greatly increased the market for house heating by gas, because the stored capacity for gas under high pressure in the transmission lines has made it possible to take care of house heating peaks with lesser proportionate investment than manufactured gas plants to meet this same peak, and by the reduction in cost of transmission capacity as the load develops to the point where lines are looped. This development, of course, has been made possible by development of house heating units of high efficiency which make the use of gas more economical than in the early days when the conversion burners were crude and very cheaply installed without the use of thermostats or other controls, which now make house heating by gas so comfortable, economical, safe and clean for the customer.

I would like to add a word of caution in respect to increasing investment, because over-expansion is a thing which ruins industry. No industry can stand a high investment ratio, and unless the turnover is rapid, it means stagnation and over-indebtedness. All new projects should be analyzed carefully to be sure there is enough new business in sight to support the transmission line, and it must be realized as a fundamental principle that no transmission line can exist purely on domestic business.

The load factor of domestic business is probably less than 50% and with increasing house heating business with load factor of 25%, it would tend to reduce that still further. Summer load, air conditioning, and refrigeration help this but it is essential to secure large volume dump or interruptible business which can be cut off the lines during peak load periods. It is obvious that present domestic rate could not be justified or maintained without the added investment profit resultant from the sale of large volume interruptible gas sales, which must be sold at competitive prices.

From the utility standpoint, we have always rendered more than adequate

service to the public at reasonable rates, but in some ways it seems to be difficult to convince the public of this fact. Perhaps we have not tried hard enough to promote the idea that we are rendering adequate service at reasonable rates because we have been too busy with our other problems of production, distribution and sales, and after all, it was necessary to survive the test of time in the struggle for the consumer's dollar. We have come through the test all right, but I think in so doing we may have neglected our duty somewhat in telling our story to the public and our customers.

We may not have the romance of the moving picture and the radio, but we are performing a useful public service and our record for continuity of service is unexcelled anywhere. It seems to me our principle problem today is that of sales, and it has been since time began.

The natural gas industry and the A. G. A. have fostered research along many lines—scholarships and gas measurement courses at the various universities, and it has stabilized the operating and metering conditions in the industry in many ways. There is more research to be done and the Laboratories at Cleveland with an investment of $500,000, have a splendid organization and are already doing valuable research work in the development of domestic appliances and industrial equipment, and ready to do more as financial support is available. I would make a plea for more funds for applied research in the Laboratories with the feeling it will definitely increase the rates at which natural gas can obtain in the competitive markets.

It would seem in the present state of things, with the thorough knowledge of economics which has been instilled into this nation during the last stormy period, that we should profit by the lessons of the past and conserve the natural resources for the future. To this end it would be sound economics to give serious consideration to the utilization of mixed gas in many of the long distance transmission projects, and endeavor to so arrange production and the acquisition of markets, so that there would not be too sudden a change in the production cost of gas over the years. In other words, as supplies of natural gas wane, it will be possible to step forward into production of manufactured gas without too much adjustment of rates. This is a matter I think all gas men and particularly natural gas men should give careful thought to so as to conserve the finest fuel yet known to man as long as possible.

We have a heritage in natural gas that is found in few other industries in this country and perhaps in the world, and we are peculiarly fortunate to find such tremendous resources and widespread application. The pioneers who laid the foundation for this industry and the executives and technical men who carried on this development are worthy of high praise. Many of them are still with us and we have the benefit of their advice and mature judgment that is only obtained through long experience. The larger developments which have taken place within recent times are forerunners of what is coming in the future. Products ranging from dynamite, rubber tires and silk stockings are now made from natural gas but I am satisfied that we have only scratched the surface in the development of natural gas and more is coming.

Natural gas has just taken its place in the larger industries in this country. Its standing is recognized by bankers and investors all over the country. Its credit rating is high; the energy, skill and resources of the industry are great; it has well-trained executives with far-seeing vision, fully capable of solving the problems involved, which can only mean a brighter future.

Gas Heating Makes Sharp Gains in New Jersey

A BLITZKRIEG on the heating market in New Jersey is being successfully carried out it appears from the latest figures released by the Public Service Electric & Gas Company, Newark, showing significant gas gains. The May issue of the company's publication, *Public Service News*, carries the following editorial in reference to these gains:

"Attesting to the increased popularity of gas for building heating is the fact that there are on the gas mains of Public Service (including System companies) more than 11,000 building-heating installations—most of them homes, although the total also includes a number of commercial installations. Sales of gas for building-heating in 1939 were 26.51% more than in 1938. During last year building-heating installations increased 2,297.

"That the trend to gas building-heating continues on the up-grade is shown by the fact there has been a net gain of approximately 400 gas building-heating installations since December 31—and this in a period near the end of the heating season when most persons are not inclined to make a change in the type of heating system.

"Further indicative of this 'swing to gas' is that 1,311 homes built in 1939 in Public Service territory are heated by this fuel. In the Englewood district of the company, 600 homes were built last year and approximately 50% of this number are heated by gas. Of additional interest in this connection is the fact that 326 of the 600 homes are in the $5,000 to $8,000 construction cost group and 59% of the 326 are heated by gas. Of 42 homes in the 'more than $8,000' building cost group 71.5% are gas-heated. In the 'under $5,000' group 232 homes were built in Englewood last year and 30.61% of these have gas heat.

"An outstanding record among the districts in Public Service territory is that of the Summit area, where 64.4% of the homes built in 1939 have gas heat. Last year a builder in Fairlawn installed gas heat in 127 out of a total of 132 homes in his development.

"It is noteworthy that a high percentage of the new homes constructed in 1939 in the $5,000 to $8,000 cost group have gas heat. Homes owners, builders and architects who are swinging to gas heat would not do so if the cost were too high or the benefits too few; they have a quiet, controllable and dependable heating system at a cost which they know to be moderate."

Golden Gate Fair to Have Gas Exhibit

THE gas industry will be represented at the 1940 Golden Gate International Exposition by a cooperative appliance exhibit sponsored and managed by the Pacific Gas and Electric Company.

This gas industry exhibit will occupy 1700 square feet of space adjacent to the Pacific Gas and Electric Company's exhibit in the Electrical Palace. Space will be provided for the showing and demonstration of all types of gas appliances.

Today's Realities . . . *Natural Gas Fuel Attracts Many New Industries*

Elmer F. Schmidt

THE centers of industrial production are always shifting. Enterprises eventually go wherever conditions are most favorable for their expansion, economy, and profit. Of course, many factors are involved; such as labor, transportation, weather—and FUEL. Do we, in the natural gas industry, fully realize the important part we play in attracting American industry to the territories we serve? If not, we should! For American industry and natural gas *are definitely going places together today.*

Fuel Influence on Industry

There is no question but that recent extensions of natural gas service and the growing industrial appreciation of natural gas "as the ideal industrial fuel" have both had a great influence in the last five years, not only upon the nature of, but upon the geographical distribution of American industry. To attempt to define this influence and to estimate it quantitatively, the Natural Gas Section of the American Gas Association wrote in December to all natural gas company members, asking for information regarding the number of new industrial plants that had moved into their territory.

The 32 replies received could not all be sufficiently specific to measure absolutely the growth and influx of industry into natural gas territory, but, with the help of the Industrial Gas Section, we have developed some approximate indications that, frankly,

By ELMER F. SCHMIDT

Chairman, Natural Gas Section
American Gas Association

are startling. Right here and now I want to thank everyone who responded to our difficult questions.

The territories served by the replying companies embrace 18,000,000 population and include over 4,000,000 gas meters—or roughly 55 per cent of all the natural gas meters in the United States. Therefore, what our replies show should certainly be representative. Listen to these facts!

It was reported that roughly 2,000 new plants had been installed in this one-half of our natural gas territory in the last five years—that roughly 2,400 existing plants had made significant additions to their facilities—and that over $300,000,000 had been spent by American industry in thus moving into or expanding within the reporting natural gas territories on a broader scale.

Effect on Employment

Further, these new or expanded natural-gas-using industries have put to work 85,000 more employees—employees not on their payrolls in 1934. That, gentlemen, indicates the effect that natural gas is having upon the employment of labor by American industry. Contemplate those figures—and be proud of the part your industry is playing in bringing American business and American labor back to normal!

Nor is the effect upon our own business—our own sendout—any the less desirable. The 32 companies which replied to our query reported that new industries and expansions of existing industries in their territories in the last five years have added to the annual gas load 57,000,000,000 cubic feet. Assuming that other natural gas territories have enjoyed similar experiences, we can state that new industry involving large-scale construction and employment has accounted for over 100,000,000,000 cubic feet of the 244,000,000,000 cubic feet of natural gas which we are selling per annum to industry over and above 1934.

These facts prove that the availability of natural gas is a powerful force in attracting new industries and extending old ones—that natural gas is playing a bigger part than most people realize, not only in bringing employment and American industry back where they belong, but carrying them on to new all-time highs.

Natural Gas Conservation

While driving forward along the utilization front, the natural gas industry has also developed the production and transmission fields to the highest possible efficiency. Conservation, of course, is and has always been one of its principal concerns. Progress is being made to reduce waste to a minimum. For instance, the wasteful practice of measuring well capacity by the open flow method has been eliminated through a research program sponsored by the Natural Gas Section of the American Gas Association. The data developed by the Subcommittee on Gas Well Deliveries have resulted in conservation practices of incalculable value. Development of recycling processes, in which natural gas companies have taken the lead, is further conserving supplies.

In these endeavors, we have had the cordial and helpful cooperation of the United States Bureau of Mines, which has consistently assisted us in working out better methods of production and helping graciously in many other problems vital to the industry. The Bureau of Standards, too, has given dignity and authority to much of the scientific advancement of our Association.

It is not enough to create something

Part of Chairman's Address before Natural Gas Section Convention, Houston, Texas, May 6-10, 1940.

that is of usefulness to the public and feel that our work is completed. Neither is it sufficient to regard our efforts as something the public should appreciate simply because we have made a vital service available to them. The user's yardstick for measuring favorable attitudes is found in the answer to the question "What does it do for me, the user?" The most fortunate men are those who are grateful for life's responsibilities and not for their own accomplishments and possessions. So it is with business.

Developing New Products

The ability of our industry to peer into new business frontiers will control its advancement. For instance, we are cut off from some of the European sources of supply because of war and are confronted with the problem of finding or making suitable substitutes. In many instances American ingenuity has developed even better substitute products than those which we formerly imported. Synthetic rubber, with characteristics superior for many purposes than natural rubber, will some day practically replace importations. Silk from waste materials, and even from gas, will some day give the American lady a non-run stocking and Japan can keep her silk. Many other products are reaching the market constantly that replace former imports. Will we share in these new developments?

In spite of unusual restrictions, excessive regulation, and exorbitant taxes, the industry is still moving forward in a mile-a-minute tempo toward a brighter future. Industry should be subject to regulation whenever the public interest requires. We do not object to equitable governmental regulation, but we do deplore governmental coercion that is unjust and injurious, not only to the industry, but to its customers. An economic situation favorable to the maintenance and expansion of our industry, as well as others, is the requirement necessary to let American industry resume and absorb the dependable unemployed in the nation.

It is imperative that we should continue breaking new ground and developing new methods of doing business. The romance of our industry, seen first by the strong pioneers before us, is still glamorous and we are motivated to seek higher peaks. Future pages of our history will be written by men with the same characteristics and qualities, by men who dare to break new ground, with courage to advance in the face of discouragement and opposition. It is such men in the natural gas industry who have made yesterday's dreams today's realities and who provide the outlook for an even more successful future.

Meritorious Service Medal To Be Awarded

THE gas industry is again being reminded by the American Gas Association, of its Meritorious Service Medal. This award is supported by an endowment in memory of Walter R. Addicks, late senior vice-president of the then Consolidated Gas Company of New York.

Consisting of a beautiful gold medal and button and a certificate, this award is the gas industry's official recognition of the gas company employee who has performed the most meritorious deed during the year. It is awarded for meritorious and conspicuous judgment, intelligence or bravery in saving human life either in the plant or works of any gas undertaking or having to do with the handling of the materials of manufacture or of the products manufactured or distributed.

It is available to an employee of any manufactured gas company or natural gas company or manufacturer company member of the Association, domestic or foreign. It may be an employee of your company performed an act of heroism and self-sacrifice in saving life and property which would make him eligible for consideration for the 1940 American Gas Association Meritorious Service Medal.

It will be recalled that the 1939 Meritorious Service Medal was presented to Ralph L. Fletcher of the Providence Gas Company in recognition of his bravery, intelligence, judgment and forceful leadership shown during and following the hurricane of September, 1938, which devastated a wide area of the Eastern Seaboard. His prompt and effective action alleviated suffering and prevented loss of life and property at the gas plant and in the community of Providence.

To qualify for the Medal, to be presented at the Convention of the Association in Atlantic City next October, the deed must have been performed during the period beginning July 1, 1939, and ending June, 1940. Applications for the 1940 Award should be sent to Association Headquarters on or before August 1, 1940. Forms for the application will be gladly furnished upon request of Association Headquarters.

Accident Prevention Methods Studied

FOCUSSING attention on accident prevention and employee education problems of the natural gas industry, conferences on these subjects at the Houston convention on May 6 provoked widespread discussion. C. L. Hightower, safety director of the United Gas Pipe Line Co., Shreveport, La., and chairman of the Accident Prevention Subcommittee of the Natural Gas Section, arranged the program and presided at the meetings.

The problem of safety was tackled from all angles, including executive, supervisory and personnel viewpoints. Speakers included K. L. Simons, division manager, United Gas Corp., Houston; R. B. Roaper, chief safety engineer, Humble Oil & Refining Co., Houston, and Tod Pazdral, Lone Star Gas Co., Irving, Texas.

A program of accident prevention in the production of natural gas was outlined by W. D. Morris, United Gas Pipe Line Co., Houston. Control of fires and explosions in compressor stations and gasoline plants was described by J. A. Bates, superintendent, Brooks Plants, Lone Star Gasoline Co., Breckenridge, Texas.

The afternoon session concentrated on employee training methods. E. L. Williams, head of the department of industrial relations, Texas A. & M. College, spoke on the adaptability of the conference method to employee training. Other speakers at this session were O. L. Jones, Oklahoma Natural Gas Co., Tulsa, and John A. Ritter, general superintendent, Sun Oil Co., Dallas.

A popular feature of the meeting was the showing of an El Paso Natural Gas Company movie entitled "Getting Gas to the Customer."

Gas Range Sales Up 62% in April

FURTHER evidence of the mounting popularity of the improved and streamlined gas appliances now on the market is contained in the latest sales report issued by The Brooklyn Union Gas Co., Brooklyn, N. Y.

During April, customers purchased a total of 4,307 domestic appliances, compared to 3,145 in the same month last year. The number represented an increase of 27 per cent over the 1939 total.

Ranges led the advance, their sales being higher by 64 per cent than a year ago. Refrigerator sales were up 11%.

The month's deliveries to customers included 1,969 refrigerators, 1,098 ranges, 317 water heaters and 131 house heaters.

The dollar value of the appliances sold was $344,765.46. This represented an increase of 7.5 per cent over that for April, 1939. Since the first of the year deliveries sales have aggregated $808,518.82.

Enhancing the setting of modern gas appliances, this newly remodeled gas show room at Selma, Alabama, strikes a new high note in attractive design. The sales floor has three soft brown tones of masonite insulating board in natural finish, providing a harmonious color scheme. The cashier's counter at the rear is framed with large radius curves and is pleasing to both the customers and the cashiers. The attractive front of the building is shown below.

Hospitality ... *Southern Style*

By R. A. PURYEAR, JR.

Local Manager, Alabama Gas Company, Selma, Alabama

IN line with the theme of the Southern Gas Association's "Clean up—Paint up" program inaugurated at the 1939 Conference, it was decided to completely remodel the Selma Office of the Alabama Gas Company.

On December 12, 1939, from 10 A.M. to 9 P.M., the official opening of the new office was held with approximately 1100 persons attending. Every lady was presented with a rosebud and a copy of the booklet, "Your Personalized Gas Kitchen." A grand prize of a gas range was given away at 9 P.M. Throughout the day cookies, coffee and tea were served to everyone. All of the refreshments were served in the new Hospitality Room from a center table impressive with its silver coffee and tea service and gayly decorated with flowers.

Previous to the remodeling, the Selma office was about the usual store building converted to our use, with the usual sameness found in the average small town utility office. It was decided to remodel in a strictly modern note using color and warmth in design. The features of the new office were to be a complete new front, redesigned show floor and office space, and a demonstration kitchen in the basement equipped for use by clubs and private parties as well as small cooking schools and demonstrations.

The new front is completely modern, being of white stucco with a wine colored structual glass base—the company name being in raised letters and finished in wine color. An artificial gas flame over the entrance marquee is in three separate layers and colors of structural glass and outlined with red Neon.

The office portion of the main floor is divided from the sales floor with a partition wall, with access doors on either side of the building. The Cashier's Counter is built into this wall in a most pleasing design being framed with large radius curves on either side and the top being covered with black linoleum trimmed with chrome mold. The balance of the rear of the building comprises the working space and distribution office, which though not modernized was refinished.

Through a doorway on the left on

This model gas kitchen at one end of Hospitality Room is the latest word in kitchen planning. The room itself is specially designed for demonstrations, parties, and other company-sponsored social and business affairs.

entering the display floor is a stairway leading to the basement. The stairway ends in an entrance hall to the Hospitality Room. This room is the main feature of the entire building and every effort was made to make it outstanding. A model kitchen is on a raised platform at one end of the room. It is complete with gas refrigerator, CP range and table top water heater. Over the sink is a blue cast mirror. Since the accompanying photograph was made a curtain has been added and during private parties, the kitchen may be cut off from the rest of the room.

All of the lighting in this room is from flush type fixtures. It is equipped with folding steel chairs to seat seventy-two persons, has six bridge tables, and silver and china to serve twenty-four persons. For Bridge Parties we furnish playing cards and bridge score pads. The cards carry the emblem "Join the Swing to Gas" and the bridge score pads are the CP design made available through the American Gas Association.

Apologies are in order to the Montana-Dakota Utilities Company at Bismark, N. D., for the name "Hospitality Room." We liked the idea and must say that the name is most excellent when used in the "deep south" where the word "Hospitality" is famous.

Provisions for air conditioning have been incorporated and the equipment will be installed in the early spring.

All in all we think that we have one of the most attractive Gas Offices in the country, and, certainly, in this section. The public in Selma has been most enthusiastic over the results and has proven its interest by the use of our "Hospitality Room."

Since our opening it has been used on an average of four times a week and every week we are receiving more requests for reservations. Ladies' Clubs, Men's Clubs, Church Societies and Private Bridge Parties comprise some of the groups using this room. Its acceptance has more than convinced us that the effort and money spent on the remodeling is worthwhile. I do not believe that any money spent for advertising and good will could produce in a more subtle way the results we have obtained from our Hospitality Room.

It's a Beautiful Gas Range

Paramount's attractive Virginia Dale taps out some new steps on one of the latest model gas ranges. Paramount will soon release Jack Benny's latest picture, "Buck Benny Rides Again," in which Miss Dale plays opposite Mr. Benny.

New Gas Film Attacks "Model T Cooking"

A NEW sound slide film, "The Magic Flame of Gas," which tells in a most interesting manner the story of fire and the preparation of food from primitive times until the present, has just been released to gas companies by the American Stove Company, makers of the Magic Chef gas ranges. Containing strong sales messages for gas cooking which have been ingeniously mixed with the historical narrative, the film is one of the best of its kind so far developed.

The first part of the film deals entirely with early methods of cooking but progresses rapidly to the automatically controlled modern gas range, with particular emphasis on the CP gas range. After describing the development of the modern gas range, the film stages a friendly cooking contest between a woman with an obsolete, antiquated gas range and a modern housewife with the latest CP model. Thus, it shows how "Model T Cooking" compares with the most up-to-the-minute methods of food preparation on a CP gas range. It drives home convincingly the time-, fuel-, and food-saving features of the modern CP gas range.

A special pamphlet showing photographs from the film, together with part of the dialogue, and other information may be obtained from the American Stove Company, Cleveland, Ohio.

Iowa Towns Change to Natural Gas

INCREASING demands for gas for heating purposes by the people of Ames and Nevada has led the company to change over to natural gas, according to F. W. Limbaugh, Boone district manager, of the Iowa Electric Light & Power Company.

At a cost of $14,000 the company will convert all the gas-burning equipment now in use by Ames and Nevada consumers in order that it will operate properly on natural gas, which is to replace the manufactured gas now being furnished. In addition, between $25,000 and $30,000 will be spent for facilities necessary to make the change, and about $100,000 is expected to be spent on the pipeline to transport the natural gas to these communities.

This pipeline will run from Ogden to Ames through Boone county south of the city of Boone. In the past the Boone plant has supplied gas for the college at Ames and Ames proper and the plant will continue to be in operation to supply the city of Boone, as the company does not contemplate any change in the gas set-up for the city of Boone.

According to Brown's Directory, Ames has 2,523 meters and Nevada 534 meters.

Range Campaign Cites Cooler Performance

GAS ranges were in the spotlight throughout the Houston Natural Gas System's territory from April 18 to May 31 when 67 dealers participated in a special campaign built around the theme "Cooler Performance." Using A. G. A. material and other advertising and promotional pieces, mailings were made to approximately 8,000 prospects.

All advertising of the company centered on CP gas ranges, with the letters being interpreted to mean Cooler Performance as well as Certified Performance. While it is too early for complete results, many extra sales resulted from this summer sales appeal.

Consumer Study Refers to A. G. A. Testing

THE American Retail Federation, Washington, D. C., which last year published a comprehensive study of the consumer movement called "Labeling the Consumer Movement," covering more than 80 consumer organizations, is issuing a supplementary bulletin reporting new developments.

This new pamphlet summarizes briefly the activities and organization of the American Gas Association Testing Laboratories. Under the heading "Comments," the following appears: "Generally held in high esteem. Claims that over 95 per cent of all gas appliances offered on the market today bear the A. G. A. Seal of Approval."

Educational Aid . . . *Natural Gas Course Meets Test of Time*

Dr. Stephens

THE natural gas industry is becoming so technical that the practical man no longer stands the same chance for success as in past years! This statement has a possibility of becoming true but fortunately there exists a number of agencies that are coming to the rescue of the man who has not had the opportunities of higher education, who finds himself employed in a highly scientific field, yet wishes to stay with it.

- **Herewith is presented the first of a series of articles planned for publication in the A. G. A. MONTHLY describing various educational courses available to men and women in the gas industry.**
- **Dr. Stephens' article covers the authoritative natural gas extension course offered by the School of Mineral Industries of The Pennsylvania State College.**
- **This college is one of the schools at which graduate fellowships are maintained by the Natural Gas Supply Men's Fund and awarded annually by the Natural Gas Section of the American Gas Association.**

By DR. MAYNARD M. STEPHENS

Supervisor, Petroleum and Natural Gas Division, The Pennsylvania State College

More Training Needed

It is often said that the men who form the backbone of the natural gas industry are those strong-backed drillers, station operators, well tenders, line walkers, gasoline plant operators and others of the industry who hold their present jobs because of their practical rather than technical knowledge. These men perhaps never wish or intend to become technical engineers in the sense of the word that applies to college-trained engineers but since the industry is becoming more technical and scientific every day it is necessary for them to learn the application of various fundamental scientific laws so that the operation of present or new equipment may be carried on more intelligently.

In 1932, a committee made up of the industrial leaders of the natural gas industry of Pennsylvania, requested the School of Mineral Industries of The Pennsylvania State College to organize a program of extension courses designed to meet the crying demand of education for the industrial worker. Professor H. B. Northrup, director of the Division of Mineral Industries Extension accepted the challenge and set about making evening extension study possible for the men employed by the natural gas industry.

Since 1893 the school had conducted a program of extension courses for the men of the coal mining industry. The wealth of experience gained through the pioneering of adult education in the mining field was applied immediately to the natural gas industry, collaborating the work of the college at all times with an advisory board composed of certain prominent natural gas men of the State who were interested in the problem. The present natural gas advisory board is composed of the following men:

Dr. George H. Ashley, Pennsylvania State Geologist, Harrisburg, Pa.
Dr. S. Pirson, Head, Department of Petroleum and Natural Gas Engineering, State College, Pa.
Dan S. Keenan, President, Carnegie Natural Gas Company, Frick Annex Building, Pittsburgh, Pa.
C. E. Bennett, President, Manufacturers' Light & Heat Co., 800 Union Trust Building, Pittsburgh, Pa.
J. French Robinson, President, Peoples Natural Gas Company, Peoples Natural Gas Building, Pittsburgh, Pa.
F. F. Schauer, Vice-President, Equitable Gas Company, Philadelphia Building, Pittsburgh, Pa.
Edward Steidle, Dean, School of Mineral Industries, State College, Pa.
George E. Welker, President, United Natural Gas Company, Oil City, Pa.

Since the original organization several changes in the personnel of the board have been necessary, because of individual retirement or death. Samuel Meals, former president of the Carnegie Natural Gas Company and John B. Tonkin, former president of the Peoples Natural Gas Company, both deceased, have in the past contributed valuable counsel as members of the advisory board.

Rex Woods, now employed by the Gulf Oil Corporation, was appointed supervisor of Petroleum and Natural Gas Extension in its early stages of development. The original course combined all phases of the petroleum industry into one three-year course. In 1936, Dr. Maynard M. Stephens, the present incumbent, replaced Mr. Woods, the latter having resigned his work with the College to accept his present position. Under Dr. Stephens, and in counsel with Professor Northrup and the advisory board, a three-year program of study was written especially for the natural gas industry of the State.

Changing With the Times

It is recognized that changes in the gas industry are continually taking place. To prepare an inflexible course would defeat the purpose of the organization, therefore it is the current policy to print a two years' supply of text material at a time so that each edition will contain the latest industrial developments and at no time will the textbooks be obsolete.

It is also recognized that the man

most interested in evening school study is the man who has not attended a school for some time. He usually needs review of or training in the scientific laws of chemistry and physics besides a certain amount of instruction in general mathematics. A detailed study conducted by Professor Northrup of the students attending the gas extension classes in this State shows that the average age of the student falls in a group between 28 and 40 while the average education of each corresponds to approximately three years of high school study. These facts point directly to the necessity of starting the three years course of study on a grade equal to second year high school level.

Course Described

The first course of a series of three, starts with simple arithmetic as applied to the petroleum and natural gas industry and continues through more advanced arithmetic, geometry, algebra, and slide rule operation. The science section of the first year textbook also adheres closely to the fundamentals of chemistry and physics as applied to the industry. Other sections of the book, such as field maintenance, the use of tools, water softening and fuel technology, tie in practical information with fundamental science.

At the present time a considerable portion of the natural gas produced in this country is closely associated with petroleum production. In cases where such is not true there is a necessity of explaining the deeper geologic horizons for natural gas. These situations, as pointed out by the advisory council, demand that the second year of extension study be spent in the consideration of the fundamentals of general geology, petroleum and natural gas geology, geophysical prospecting, well location, churn and rotary drilling methods with particular emphasis being given to eastern practices.

The third and last course of the series is devoted to a study of the surface problems involved in natural gas production, including gathering, compression, transmission, metering and pressure regulation.

The natural order of the subjects covered in the three years of study make it possible for the worker of normal intelligence and ambition to follow the course to completion without overtaxing or exerting his powers of learning. At the conclusion of the course the student should be able to read with understanding almost any instruction sheet, technical article or notes on the industry.

The program of study in Pennsylvania is conducted under two plans. Classes are organized under

Professor H. B. Northrup

local school boards and in cooperation with the State Department of Public Instruction, or as private classes conducted strictly for the employees of a particular company. In the first case the teacher, who is selected from the local industry because of his experience, personality, and knowledge, is paid by funds supplied by State and Federal Vocational Acts. In the latter case the students or the company pays the teacher's salary.

One hundred and twenty hours of instruction are given in each year of the course. This means that two nights a week, two hours a night for thirty weeks, or any other combination suitable to the group, is necessary to cover the material presented. A certificate is given to those students who pass the three examinations given each year of the course and who attend 75% of the regular class sessions. A diploma of industrial grade (non-college credit) is given at the completion of the three years of study. Those men who are not situated near extension class centers, or who live in other states, can take advantage of the same course, offered by correspondence instruction, at a slightly higher cost.

Since the College offers the text material at the cost of printing, the average cost per student for each year's course may vary from $2.00 to $10.00 depending upon the method of organization, thus making the study within reach of any one who wishes to attend class, or to enroll for correspondence instruction.

Each year ten to fifteen natural gas classes meet regularly in the various gas producing or distributing communities of the State, with a total annual average attendance of two hundred or more men.

Allied Industries Helped

It is the aim of the Division of Mineral Industries Extension to aid not only the men employed by the natural gas industry but also those of the petroleum refining, petroleum production, ferrous metallurgy, fuel technology, ceramics and coal mining industries as well. Each year the Division enrolls about four thousand students, every one of which is employed by one of the mineral industries of the State of Pennsylvania.

It is recognized that every person engaged in work in any one of the mineral industries must study regularly to maintain his present status with his particular company or to advance in the order normally expected. Since exact calculations and technically correct procedures are rapidly replacing the older "rule-of-thumb" methods, employees must learn the fundamentals back of the present industrial methods in order to do efficient work for their company. It is, of course, possible to study without the aid of classes or home-study courses but it is found that the incentives to study are greater when a prescribed course is followed, since social obligations are not permitted by the student to interfere with the good intentions and interrupt an evening of study.

4-Purpose Contact . . . *Gas Range Promotion Via Meat Cookery*

By Albertine Berry

Lone Star Gas Company, Dallas, Texas

SELDOM is a promotional cooperative program devised that benefits all those concerned, but we believe we have one that pays dividends to everyone participating. To that extent this Four-Purpose Contact of gas range promotion through meat dealers is unique. By Four-Purpose Contact we mean:

1. A sales promotional activity for both gas company and food dealer.
2. A load building factor of considerable proportion.
3. An activity productive of improved public relations.
4. Greater consumer acceptance.

Meat Consumption Habits

Our plan came into being when it was brought to our attention that while meat consumption in the nation as a whole had dropped perceptibly in recent years, butchers were having difficulty in disposing of the less expensive or less tender cuts of meat. In talking with meat dealers in Dallas, we found they blamed this condition on ignorance on the part of housewives who did not know how to cook these less tender cuts in order to make them palatable, and the butcher's hesitancy to recommend the less tender cuts lest the customer complain of their lack of tenderness, and perhaps not even return to the shop. By spending some time observing the meat buying habits of Dallas housewives, we heard comments which proved these facts to be true.

Our obvious approach to the wholesale and retail meat dealers then was to offer to try to help them (1) to increase the sale of the cuts of meat most difficult to dispose of, and (2) to help them reduce the number of complaints. That appealed to them, naturally, and after discussing it with a number of the larger dealers, including the chain stores, we issued written invitations to the more than 250 meat dealers and butchers to a meeting in our auditorium. Well over half of them attended this meeting, at which the proposed plan was explained and a demonstration was given of the principles of cookery involved. We very fully explained our reasons for offering our services, telling the men we were trying to promote the acceptance of controlled cooking in the promotion of modern cooking appliances.

Roasting Test

The demonstration consisted of a comparative test on twin roasts, one cooked at a high temperature, the other at a low temperature, with both of them weighed on accurate scales on the stage and the shrinkage computed. They saw the difference in the quality of the two roasts and what effect correct temperature had on the finished product. A pot roast and a stew were prepared on the simmer burner to show the effect of actually simmering the less tender cuts instead of boiling them, and just to make it more impressive, we saved a portion of the stew meat so they could see how tough and stringy it was before being cooked. These men sampled this food and gave it their unqualified approval, and in so doing, endorsed controlled cooking. We also broiled a steak for them to let them see the smokeless broiler in action, and explained the correct method of broiling.

Having proved our contentions, our next step was to outline our plan, which was a simple one. We offered each butcher a large poster in bright colors which carried the picture of a genial chef with the message, "Cook your meats at moderate temperatures. Their tenderness will surprise you." In addition, we offered him a supply of these meat charts, giving full instructions for roasting, broiling, braising, stewing, and pot roasting, together with a beef chart and information on cooking meats according to the cut. Of course the correct temperatures were emphasized, and the only advertising was contained in the one sentence, "Modern gas ranges equipped with automatic heat control are on sale at your gas appliance dealers."

At that meeting, which was the only one held, over 12,000 of these charts were requested. At all times the cooperation was voluntary, and no high pressure was brought to bear. Before the end of the week, some 35,000 were requested and before the month was over, we had a reprint on the chart, distributing altogether 80,000 of them. Allowing for the inevitable waste and duplication, we believe that very nearly all of our 70,000 customers were reached during the campaign.

Butchers' Cooperation

How were these charts distributed? All the butchers cooperating used the posters and kept the charts on the counters to be picked up, most of them calling attention to them by word of mouth or by pasting a copy to the scales where nearly everyone glances at some time during the purchase. Several of the chain stores put the charts in all baskets or in the sacks. Two of the de luxe food stores delivered a chart with each order for three days.

About two weeks after the launching of the campaign we asked several of the dealers if they felt it had been of any value to them. All of them readily said the number of complaints had greatly decreased, and one chain store market manager with 17 stores said their sales had jumped 20%, due, he believed, to a better buying intelligence and the better utilization of the

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cuts purchased. We found, too, that market men were talking about our product and our gas ranges, and that at least 5 of them bought new gas ranges for their own homes. In making home calls, our girls find the meat charts prominently displayed in the customers' kitchens, and on inquiry find they use them regularly.

We followed this campaign with additional discussion of meat cookery on our radio programs and devoted several of our Modern Homemaking bulletins to the subject.

Sees Many Changes in 80 Years on Gas Company Payroll

John H. Martin

IN 1860, one year before the outbreak of the Civil War, a boy, not yet in his 'teens, got a job with the gas company at West Troy, now Watervliet. That boy, John H. Martin, now 92 years old, worked there for 61 years and is still on the payroll of the New York Power and Light Corporation as a pensioner. And to round out this amazing history is the fact, to quote Mr. Martin; I never lost a day's pay in all that time."

This is a record unequalled by any other member of the New York Power and Light organization and probably by few, if any, other persons in the entire country.

Eighty years ago this youth of 12 looked about for a job and got it with the West Troy Gas Company. Compulsory education was unknown in those days and children usually went to school only when their parents had the money to send them.

Lighted Gas Lamps

Once on the payroll, the young Martin was assigned to odd jobs about the gas plant. It was also his daily chore at dusk to light six gas lamps along the business street, and 24 kerosene lamps scattered about town which the gas company maintained. At two a.m. he again made the rounds to turn off the lights and this, of course, was all on a seven-day per week basis. On bright moonlight nights, however, the lamps were not lighted.

Several times a week the boy started out with a wheelbarrow and two cans of oil to fill and clean the lamps. The pay was $15 a month, which found its way into the family coffers for general household support.

In 1867 he became actively engaged in the operation of the gas plant, as gas maker. He continued as such until 1889 when gas was supplied to Watervliet from Albany. From then until 1921, when he was retired from active service, he served as utility man at the plant.

"The Civil War? Yes, I remember the recruiting station in town, but I was too young to go," Mr. Martin reminisced.

"The blizzard of '88 stands out as the greatest experience I ever had. The gas plant was snowed under and instead of using ladders, we could walk on top of the snow banks and fix most of the street lights. Some of them were buried for days.

"At the plant," he went on to explain, "the holder was only 48,000 cubic feet capacity, as compared with holders of 6,000,000 cubic feet capacity today. They probably turn out as much gas at the Troy coke plant in a day as we did in a year. Gas was used only for lighting then and cost $4.50 per 1,000 cubic feet.

Romance at the Plant

"The plant gave us plenty of trouble," he tells, "as the business was new. We worked seven days a week and 12 hours a day. When one of the men quit, I stayed in the plant day and night for a week until a new man came. Long hours meant nothing in those days. I lived close to the plant and sometimes my wife, who died several years ago, would come over and help me. She knew quite a lot about running the plant. We even did some of our courting there.

"Speaking of gas, it was not as good as it is today. The gas often smoked due to using poor coal. When that happened, we would dump some bones, which were always kept on hand in the yard, into the retorts and the fumes from the bones would make the gas richer and stop the smoking.

"Here's another of the crude methods we used in the early days. When we had a leak where it was necessary to open a gas main, we took a pig bladder and blew it up in the end of the pipe to keep the gas from leaking out."

When questioned as to his health, he was inclined to boast of the few days he had lost due to illness when he was actively employed.

"Gas makers," he said, "are a pretty healthy lot. In those days the gas works actually played a part in curing disease, particularly in cases of whooping cough. Whenever we opened the purifying boxes, we sent word out and I've seen as many as two dozen children and grown-ups, rich and poor, hanging their heads over the open purifying boxes and inhaling the fumes. This was considered, even by the doctors, as the best cure for whooping cough."

The use of machinery is the greatest change in the business since the early times, according to this veteran.

"Machinery now does all the back-breaking work. Shoveling and wheeling the coal, firing the ovens and pulling the hot coke from the retorts was hard work when I made gas 65 years ago—and the pay was $1.00 a day. Today those fellows just pull levers and push buttons to make the gas."

"The old gas plant, which was located at 5th Avenue and 18th Street, has long since been torn down and the old company has become a part of New York Power and Light Corporation. Where it stood, the 12-year-old youngsters of today play ball after school hours."

Mr. Martin, since his retirement in 1921, has lived with his son, Nelson J. Martin at 1920 Third Avenue, Watervliet. He is an honorary member of the New York Power 25 Year Club and the members of this organization plan later this month to fittingly observe this outstanding record of one of its members.

Wisconsin Gains

IN a streamlined annual report, notable for its pictorial excellence and effective presentation of facts and figures, the Wisconsin Public Service Corporation calls attention to impressive gains made in 1939. While revenues increased $321,645 or 3.6%, operating expenses and repairs decreased $315,754 or 8.5%. Net earnings showed a gain of 21.3% or $289,031 over 1938.

Total sales of gas by the corporation increased 2% over the previous year.

Particular attention is paid in the annual report to the huge tax bill which amounted to more than two months' operating revenue for 1939. The report estimates that taxes took 19 cents out of each dollar of total income received, amounted to $1,197 per employee, and averaged $13.29 for each customer.

Jessie Read Dies

MRS. ROBERT HATELY, who was widely known in the gas industry as Jessie Read, for many years director of the home service department of the Consumers' Gas Company, Toronto, Ontario, died suddenly April 7 at the age of 35.

Jessie Read was a member of the Home Service Committee of the American Gas Association and attended a number of A. G. A. conventions where she made many friends. Since her marriage, she conducted the food column "Three Meals a Day" for the Toronto *Telegram*. She was one of Canada's best known dieticians.

Hollywood Uses Gas for Cake-Baking

It looks like a happy day for the Hardys—for the Metro-Goldwyn-Mayer actresses Fay Holden (Ma Hardy) and Cecelia Parker (Marion Hardy) spend a lot of time preparing a luscious-looking cake for the masculine members of the family, the Judge (Lewis Stone) and Andy (Mickey Rooney). Of course, that's a gas range in the background which baked the cake

U. S. Chamber Director for Fourth Time

MAJOR T. J. STRICKLER, vice-president and general manager of the Kansas City Gas Co. and first vice-president of the American Gas Association has been re-elected a director of the seventh district of the United States Chamber of Commerce. Major Strickler's re-election took place April 29 in Washington, D. C. at the annual meeting of the Chamber. He is now serving his fourth term as a director of the seventh district.

Invite Applicants for Munroe Award

AT each of its annual conventions since 1929 the American Gas Association has honored an individual deemed to have made the outstanding contribution toward the advancement of the gas industry. That honor is the Charles A. Munroe Award consisting of a substantial sum of money and a permanent certificate.

The accomplishment may be along any line. For instance, the first award went to Nils T. Sellman, of New York, for his work in connection with the development and marketing of the gas refrigerator while last year James F. Pollard, of Seattle, received the Munroe Award for having provided the spark which made the eminently successful national advertising campaign possible.

The Association is inviting applications for the 1940 Munroe Award which may be filed by an individual or company member on or before August 1. The applications will be judged by a committee of three prominent gas company executives to be appointed by President Walter C. Beckjord, and will be passed on by the Executive Board. The presentation of the Award will be made at the Association's convention at Atlantic City next October.

It Was Colder Last Winter

CAREFUL records kept by the Westchester Lighting Company, Mt. Vernon, N. Y., confirmed what most people on the Eastern seaboard had already guessed—that last Winter was unusually cold. The records show that the heating season of 1939-1940 was 15.1 per cent colder than the Winter before and 6.6 per cent more fuel-consuming than the average for the past 50 years.

Up to April 29, according to the company's experts, this past season's heating percentage had run up to 103.57 compared with the normal of 100. On the same date in the season of 1938-1939, the percentage was only 90.

Daily 24-hour temperature records are kept by the house heating division from instruments atop the company's main building in Mt. Vernon. These records are then adjusted against temperatures recorded by the U. S. Weather Bureau in New York City.

Engineering Course Fee Is Reduced

IN order to make it possible for more young men in the gas industry to benefit by taking the course in Gas Engineering offered by the Polytechnic Institute of Brooklyn, Brooklyn, N. Y., the fee has been reduced from $100 to $65.

The sequence of lectures, laboratory sessions, conferences, quizzes and inspection trips remains practically the same as in the past, and former standards are to be maintained in every respect. Minimum admission requirements also remain as before, namely, a knowledge of Physics, Chemistry and Algebra equivalent to that given in high schools.

The Polytechnic Institute Course is a comprehensive one arranged primarily for men employed in the manufactured gas and allied industries. It consists of 28 lectures, 22 laboratory sessions, five inspection trips to various gas works and other special features. It started in 1926 and by 1940 had been taken by approximately 350 men from gas companies. It is conducted by the Mechanical Engineering Department under the direction of Professor Edwin F. Church, Jr., head of the department.

Scott Joins Mueller

James R. Scott

APPOINTMENT of James R. Scott, as assistant to the president, has been announced by H. P. Mueller, president of the L. J. Mueller Furnace Co., of Milwaukee.

For the past seven years Mr. Scott has been engaged in sales and engineering for Surface Combustion Corporation. He was formerly manager of the gas heating division of American Foundry and Furnace Company for four years.

Miracle House Shown on Display Floor

A TWO-ROOM Cape Cod cottage, located in the display room of the Boston Consolidated Gas Company at 100 Arlington Street, Boston, is attracting large crowds of people to view its all-gas equipment.

Particularly noteworthy is the fact that the two of the sides of the model house open into the gas company's regular street display windows. Thus, with the interior of the house brilliantly lighted, the company gets maximum value from pedestrian and automobile traffic passing the main office building.

Billed as a modern Miracle House, with the newest creations in streamlined kitchen and basement planning, it demonstrates the beauty and efficiency of modern gas appliances. Novel color harmonies, the nautical *motif* of the basement room, together with the exterior garden shrubbery effects, are interesting features of the display.

In the basement, attractive automatic gas house heating and water heating equipment shows what can be done to provide leisure and comfort for the family. The model kitchen includes the newest health-cooking CP gas range and the gas refrigerator.

Cape Cod cottage shown on gas company display floor

While crowds lined up on opening day to view Gas Wonderland, the 1940 World's Fair's latest outstanding attraction, manufacturer and utility executives took part in a reception at the Court of Flames Club. Photographed at the reception were, left to right: H. N. Ramsey, vice-president, Gas Exhibits, Inc.; Clifford E. Paige, president, The Brooklyn Union Gas Co.; B. G. Neilson, vice-president, The Brooklyn Union Gas Co.; N. T. Sellman, president, Court of Flame Club; and C. W. Berghorn, managing director, A.G.A.E.M.

Gas Wonderland . . . *A 1940 Fair Hit!*

LESS than an hour after the New York World's Fair officially began on Saturday, May 11, its second year as the greatest exposition of all time, the buildings and landscaped areas of Gas Wonderland, the entirely new exhibit group representing America's gas industries at the Fair, were packed to overflowing with old and young alike whose enthusiastic comments, intent interest and non-willingness to move on made it apparent that the new presentation was destined to be a success.

During the first day of the 1940 Fair, people were streaming through Tiny Town, one of the high-points of the new exhibit, at the rate of 3,600

Inside the winding caverns of the "Magic Caves of Ice" the crowds move slowly, stopping before the ten dioramas which portray the history of gas refrigeration. Center—The Disappearing Dwarf of Gas Wonderland takes a bow before an admiring throng of first-day Fair-goers, for his feat in lighting a huge flame inside a column of water (the big cylinder-pilot at his left). Right—Gaso, the dwarf, toys with the ice cubes in the millionth gas refrigerator, which is placed next to the refrigerator used in the Dionne quintuplets' home

an hour. Traffic through this building became so heavy that it was necessary to close one entrance and move visitors in a single direction.

Heavy congestions also occurred in the Mystery Garden where people seemed fascinated by the "talking" flagstones, "singing" trees, "disappearing" statues, and other amusing and surprising novelties which made for a general atmosphere of carefreeness and which was obviously appreciated.

Attendants in the Magic Caves of Ice, the Servel Electrolux display, kept up a steady pace of answering questions, and courteously handling the surge of visitors. The Flame Restaurant, which can accommodate indoors more than one thousand diners at one time, as well as several hundred out-of-doors, found it necessary to turn customers away.

To the men responsible for the revolutionary changes made in the exhibit, it has been a gratifying experience. Hugh H. Cuthrell, president of Gas Exhibits, Inc., the non-profit cooperative group conducting the gas industries' participation in the Fair, has received in behalf of his associates, the designers, architects and engineers, the congratulations and plaudits of World's Fair officials, members of the press, and prominent gas utility men and gas appliance manufacturers. It was more than evident that these persons immediately recognized the public appeal and expositional merit of the gas industries' 1940 exhibit group.

On Thursday, May 9, Mr. Cuthrell and N. T. Sellman, president of the Court of Flame Club, were host to nearly 200 newspaper editors, magazine writers, radio commentators, and representatives of newsreel companies, broadcasting networks, magazines, and trade publications. Following an informal reception, the guests were given a preview of Gas Wonderland. The members of the press were highly complimentary in their praises of the 1940 presentation.

The board of directors of Gas Exhibits, Inc., on Saturday (May 11) the opening day, tendered a buffet luncheon to executives of the gas utility and manufacturing companies who have contributed to-date to the Fair participation. It might be pointed out that most significant was the apparent surprise and wholehearted pleasure caused by the number of people in Gas Wonderland who confronted the guests as they descended from the club following luncheon.

Other features of Gas Wonderland which attracted the interest of the Fair visitors included "Gaso," the disappearing dwarf who "brings in the crowd" through the entrance from the Avenue of Patriots, and the kaleidoscopic pools in the open Court of Flame. The Lafayette diorama, the large terrazo marble map showing the distribution of natural gas in the United States, and the colorful fire and water fountains, all of which are located in the Mystery Garden, also were given noticeable attention.

Miss Mary Dillon, president of The Brooklyn Borough Gas Company, being entertained by Hugh H. Cuthrell, vice-president, The Brooklyn Union Gas Company, and president, Gas Exhibits, Inc., during the opening day reception.

Center—The Mystery Garden of the gas industries' exhibit group, as it appeared that day. The garden has singing trees, talking flagstones and other attractions.

Right, top—Visitors express keen delight at Tiny Town, another section of the gas exhibit. Tiny Town is a realistic representation of a typical American suburb, reproduced in detail with 21 buildings which "talk" as they pop open, revealing the various uses of gas appliances in industry, in commerce and in the modern home.

Bottom—Another section of the Mystery Garden with Gaso, the dwarf entertaining crowds on the opening day.

Gas Measurement Course Breaks Record

THE sixteenth annual meeting of the Southwestern Gas Measurement Short Course was held at the College of Engineering, University of Oklahoma, Norman, Oklahoma, April 16-18. Sponsored by the College of Engineering of the University of Oklahoma and assisted by the Corporation Commission of Oklahoma, Kansas Corporation Commission, Railroad Commission of Texas, Oklahoma Utilities Association, Natural Gas Section of the American Gas Association, and the Natural Gasoline Association of America, the course drew a record registration of 670 from twenty-one states, Mexico and Canada.

Ray L. Rountree, superintendent of measurement, United Gas Pipe Line Company, Shreveport, Louisiana, was elected chairman of the General Committee for the 1941 Short Course and was introduced at the final general assembly. The next meeting of the General Committee will be called in November to elect chairmen of the various subcommittees and to lay plans for the 1941 Short Course.

Publication of the Proceedings of the 1940 Short Course will be available in the near future.

Manufacturers Outline New Objectives at Fifth Annual Convention

Frank H. Adams

THE Association of Gas Appliance and Equipment Manufacturers held its fifth annual convention at the French Lick Springs Hotel, French Lick, Ind., on May 20-22, with several hundred representatives of the industry from all sections of the nation present. Delegates expressed their keen satisfaction with the meeting which had been hailed as a "sensible convention."

A "Sensible" Convention

Officials of the Association, in formulating the program of the convention, had been guided by a report of the program committee which had emphasized the "need for more sensible conventions in this country." Therefore, it was decided to have no speakers outside the industry, and that matters for discussion would be confined specifically to the gas industry in general and to the gas appliance and equipment industry in particular.

At the opening session on May 20, the delegates were welcomed by Frank H. Adams, vice-president of the Surface Combustion Corp., of Toledo, who is also president of the Association. Mr. Adams told of the accomplishments of the Association during the past year and outlined the objectives of the coming year. The president's address was made at a luncheon to which the wives of delegates were also invited.

Monday afternoon was given over to a golf tournament on the famous links of the hotel. A bridge game was also held in the afternoon for those who did not play golf.

The main sessions of the convention were held on Tuesday, with the morning program consisting of three addresses. N .T. Sellman, who is chairman of the American Gas Association Laboratories' Managing Committee, and assistant vice-president, Consolidated Edison Company of New York, spoke on "Laboratory Activities and Appliance Developments." Louis Ruthenburg, president of Servel, Inc., had as his subject, "Industrial Relations." W. C. Beckjord, president of the American Gas Association, and vice-president and general manager, Columbia Gas & Electric Corp., discussed "Co-ordination of Sales Activities for the Future."

An important phase of the convention was the series of divisional meetings held on Tuesday afternoon in which promotional plans for the sale of major gas appliances and equipment were outlined by the chairmen of the respective divisions.

The divisions and the chairmen were as follows: Domestic Gas Range, W. E. Derwent, vice-president, Geo. D. Roper Corp., Rockford, Ill.; Gas Water Heater Division, L. R. Mendelson, President, Hotstream Heater Co., Cleveland, Ohio; Gas House Heating and Air Conditioning Equipment Division, W. L. Seelbach, The Forest City Foundries Co., Cleveland, Ohio; Direct Heating Equipment Division, E. C. Adams, president, Adams Brothers Mfg. Co., Pittsburgh, Pa.; Gas Meter and Regulator Division, J. C. Diehl, American Meter Co.,·Erie, Pa.; Gas Valve and Fittings Division, R. L. O'Brien, Detroit Brass and Malleable Works, Detroit, Mich.; Thermostatic Control and Accessories Division, W. A. Lean, The Wilcolator Co., Newark, N. J.; and the Industrial Gas Equipment Division, F. J. Fieser, American Radiator & Standard Sanitary Corp., New York, N. Y.

Home Service Meeting Held in Atlanta

HOME service representatives from 13 companies through six southern states attended a two-day Regional Home Service Conference in Atlanta, Georgia, April 26 and 27. One entire day was given over to a discussion of regional home service activities which, because it allowed for full discussion, proved particularly interesting and helpful in the furtherance of home service activities.

Jessie McQueen, of the American Gas Association, called the conference and presided during the discussion.

Representatives of three nearby colleges of home economics were told the story of home service and given a description of the work under way. This meeting was held in the new Blue Flame Room of the Atlanta Gas Light Company, and the attractive setting added to the success of the program. The three schools represented were the University of Tennessee, University of Georgia and Georgia State College for Women.

A home call skit was presented by Miss Hardeman and Miss Slagle, of the home service department in Atlanta, and a talk on demonstration techniques was given by Ida Lansden of the Virginia Public Service Company at Alexandria.

Concluding the conference was an inspiring discussion by E. J. Stern, vice-president of the Atlanta Gas Light Company. Cephalie Lewis, home service director, showed the well known southern hospitality during the two-day conference. The Atlanta Company officials were hosts on a sight-seeing tour of Atlanta following the Friday meeting.

This vivid poster that dramatically spotlights Gas Wonderland, the gas industries' exhibit group at the New York World's Fair, is now being prepared by Gas Exhibits, Inc., for distribution to all utilities and gas appliance manufacturers throughout the country, with the exception of the West Coast area in deference to the San Francisco World's Fair. The posters, which are 16 by 20 inches, in four colors, are available free of charge to the gas industry upon request to Gas Exhibits, Inc., 4 Irving Place, New York City

AFFILIATED ASSOCIATION *Activities*

Pennsylvania Gas Association

L. B. Eichengreen

ABOUT 500 delegates and guests assembled at Skytop, Pa., May 14-16, for the thirty-second annual convention of the Pennsylvania Gas Association. Under the able leadership of L. B. Eichengreen, vice-president, Philadelphia Electric Co., and president of the Association, a well-balanced program dealt with the outstanding problems of the gas industry.

In his presidential address, Mr. Eichengreen called attention to the substantial gains made by the gas industry in Pennsylvania during the past year, where domestic sales and revenues were ahead of the national average. Total gas sales in the state amounted to $30,000,000.

What Customer Thinks

A feature of the opening session was an address by Elmo Roper, well-known business expert, whose surveys have been published in *Fortune* magazine. In discussing "What the Customer Thinks of the Utilities," Mr. Roper said that the public has no quarrel with big business because it is *big*. "In answer to a question calculated to establish the merits of big vs. little business, the vote was two to one for keeping large corporations," he stated.

New officers for 1940-1941 elected at the meeting are: president, M. A. Boylan, Scranton; vice-presidents, P. T. Dashiell, Philadelphia; F. W. Lesley, York; H. H. Ganser, Norristown; secretary, William Naile, Lebanon; treasurer, W. G. Sterrett, Jenkintown.

The first business session, held on Wednesday, was devoted to distribution, production and accounting subjects. This meeting included the following discussions: Paul A. Fusselman, Philadelphia Electric Co., "Effect of Pressure Reduction on Unaccounted-for Gas"; Paul Ganser, Philadelphia Electric Co., "Pipe Line Corrosion Caused by Anaerobic Bacteria"; R. A. Maloney, Bridgeport Gas Light Co., "The Importance of Cost Control and Sales Promotion Work"; Leonard B. Richards, Consumers Gas Co., Reading, "Comments on a Central Telephone Station from a Small Company Viewpoint"; G. F. Tyler, Philadelphia Electric Co., "Preparing Gas Properties for Flood and Hurricane Conditions." H. E. Cliff, Public Service Electric & Gas Co., Newark, talked on "Customer Relations Angle of the Customers' Accounting Department."

Addresses by Walter C. Beckjord, president of the American Gas Association, and Dr. John L. Davis, of New York City, were the center of attraction at the Wednesday evening meeting.

Customer and employee relations and new business activities were discussed at the closing session on Thursday. Because utility good will is so often determined by women customers, the earlier part of the program was taken up by two women employees—Helen Farrell, Public Service Electric & Gas Co., Newark, and Beatrice Cole Wagner, The Philadelphia Gas Works Co. Both of them emphasized the vital necessity of paying more attention to the woman's viewpoint.

In the new business part of the session, James W. Carpenter, Long Island Lighting Co., spoke on "Selling Gas House Heating in New Homes"; N. B. Bertolette, Hartford Gas Company, presented a paper on "Gas Sales Promotion in a Highly Competitive Territory"; and E. C. Sorby, Rockford, Ill., talked on "Promoting Gas Sales."

Indiana Gas Association

THE thirtieth annual convention of the Indiana Gas Association, held in Evansville, Ind., May 13-14, was an outstanding success. A well-balanced program was presented under the leadership of Paul E. McLeod, president of the Association. F. B. Culley, Southern Indiana Gas & Electric Co., Evansville, acted as chairman of the program committee and his company was official host to the visiting delegates.

Highlight of the convention was an address by Louis Ruthenburg, president, Servel, Inc., given at the banquet, May 13. A number of manufacturers presented appliance exhibits which contributed much to the convention.

E. C. Weston, Indiana Gas Utilities, Richmond, was elected president of the Association for 1940-1941. Other officers elected at the convention are: F. B. Culley, Southern Indiana Gas & Electric Co., Evansville, vice-president; and H. W. Thornburg, Central Indiana Gas Co., Anderson, secretary-treasurer.

Extensive reports were made by Dr. John R. Bray and Professor J. M. Krappe, of Purdue University, where the Association maintains a chair of applied research.

One of the most popular features of the convention was the "Gas Information, Please" program given before the sales section. It employed the radio technique of the Quiz programs and was directed by George Saas, advertising manager, Citizens Gas and Coke Utility, Indianapolis.

In addition to the general sessions, separate meetings of the accounting, technical and sales sections were held.

Canadian Gas Association

THE advance program for the thirty-third annual convention of the Canadian Gas Association, which will be held jointly with the Pacific Coast Gas Association, at Jasper Park Lodge, Alberta, July 3-5, is studded with the names of gas experts who will cover many timely industry problems. Under the leadership of Julian Garrett, general manager of Northwestern Utilities Ltd., Edmonton, president of the Association, this convention is expected to be one of the most practical yet held.

Among the subjects to be discussed are: "National Advertising," "The Gas Industry's Stability," "The Future for Manufactured Gas," "The Family Budget and Gas Appliances," "The A. G. A. Testing Laboratories," "Gas Change-Overs," "Geochemical Prospecting," "Marketing Coke," "Community Development," "Firing of Natural Gas for Steam Generation," "Appliance Sales," "What Are Women Thinking?," "Pipe Line River Crossings," and many others.

A partial list of speakers who have accepted places on the program include: James F. Pollard, president, Seattle Gas Co.; Major T. J. Strickler, vice-president and general manager, Kansas City Gas Co.; F. M. Banks, vice-president, Southern California Gas Co.; A. F. Rice, Occidental Stove Co.; R. S. Agee, A. G. A. E. M., sales promotion manager; R. M. Conner, director, A. G. A. Testing Laboratories; S. B. Severson, vice-president, Dominion Natural Gas Co.; Hugh Grace, British Columbia Electric Railway Co., Ltd.; Leroy M. Edwards, president, Industrial Fuel Supply Co., Los Angeles, and E. Holt Gurney, president, Gurney Foundry Co., Ltd., Toronto.

A sales round table symposium which will include prominent sales executives, will be conducted by W. C. Mainwaring, general sales manager, B. C. Electric Railway Co., Ltd., Vancouver. Another feature of the convention will be a "Question Box Hour." An annual banquet, golf tournament and other events will round out the program.

Gas Meters Association of Florida and Georgia

APPROXIMATELY 400 were in attendance at the annual meeting of the Gas Meters Association of Florida and South Georgia held at the Hollywood Beach Hotel, Hollywood Beach, Florida, April 22 and 23.

C. D. Littlefield, Peoples Water and Gas Co., Miami Beach, was chairman of the Committee on Arrangements and Program. Mr. Littlefield was elected president of the Association for 1940-1941.

A. H. Bruning, president, Florida Public Service Co., Orlando, opened the convention with a report of the year's activities, outlining the program of work of the residential, commercial and technical divisions of the Association.

J. D. Taylor, Central Florida Gas Corp., Bartow, presided at the programs of the Residential Section; Stuart Johnston, Florida Public Service Co., Orlando, led the Commercial Section, and H. P. Thomas, Peoples Water & Gas Co., Miami Beach, headed the Technical Section.

At the two convention luncheons, the speakers included McGregor Smith, president, Florida Power & Light Co. and H. R. Cloud, vice-president, Florida Public Service Co.

The program put special emphasis on the showmanship of advertising and the national advertising program. H. Carl Wolf, president, Atlanta Gas Light Co., outlined the effective use of national advertising. Harold Duguid, Jacksonville Gas Co., explained the showmanship angle.

Home service work in the gas companies was outlined by Jessie McQueen of the American Gas Association under the titles, "What's Next in Home Service" and "Working With the Salesman."

The domestic salesmen presented points on the promotion of the CP range and gas refrigeration. R. S. Agee, Association of Gas Appliance and Equipment Manufacturers, and Carl Sorby, George D. Roper Corp., outlined the promotion of the CP range. R. J. Canniff, Servel, Inc., spoke on refrigeration.

An "all-purpose range," demonstrated and designed by an unnamed manufacturer, indicated that Rube Goldberg had nothing to offer in comparison with the range presented. For the sake of fun, the old model range was fixed up with such modern conveniences for use and service as never before have even been dreamed of. Stuart Johnston, Florida Public Service Co., presided as chairman of the meeting where it was presented, and we refer all questions to him.

A discussion of hotel and restaurant equipment was given by H. C. Erhard, Standard Gas Equipment Corp., and "Small Appliances" were covered by Henry Birkhall, People's Water & Gas Co. "Commercial Advertising and Publicity" was outlined by John Spicer Kelsey, Fenton Kelsey Co., Chicago. Sales discussions in the Commercial program were presented by R. S. Chapman, Atlanta Gas Light Co., and Fred Keune of the Florida Power & Light Co.

The technical program included two subjects, "Proper Pressure Regulation from Holder to Appliance," by Allen D. MacLean, Pittsburgh Equitable Meter Co., and "Evaluation of Gas Oils" by R. L. Ellis, Florida Power & Light Co.

The entertainment features included the annual banquet and dance.

In all, a very successful meeting, well attended and with a particularly effective program was presented.

CONVENTION CALENDAR

JUNE

June	4-6	**Edison Electric Institute** Atlantic City, N. J.
	7	**Operating Division, New England Gas Association** Hotel Viking, Newport, R. I.
	17-20	**American Society of Mechanical Engineers** Milwaukee, Wis.
	23-26	**Public Utilities Advertising Association** Palmer House, Chicago, Ill.
	23-27	**American Home Economics Association** Hotel Statler, Cleveland, Ohio.
	24-28	**American Society for Testing Materials** Chalfonte-Haddon Hall, Atlantic City, N. J.

JULY

July	3-5	**Canadian Gas Association—Joint Meeting with Pacific Coast Gas Association** Jasper Park Lodge, Alberta, Canada
	8-10	**Michigan Gas Association** Grand Hotel, Mackinac Island, Mich.

AUGUST

Aug.	19-21	**Appalachian Gas Measurement Short Course** Morgantown, W. Va.

SEPTEMBER

Sept.	9-13	**American Chemical Society** Detroit, Mich.
	18-20	**Pacific Coast Gas Association** Hotel del Coronado, Coronado, Calif.
	23-26	**American Transit Association** The Greenbrier Hotel, White Sulphur Springs, W. Va.
	25-27	**American Trade Association Executives** Chicago, Ill.
	26-27	**Empire State Gas & Electric Association** Westchester Country Club, Rye, N. Y.

OCTOBER

Wk.	7	**American Gas Association Annual Convention** Atlantic City, N. J.
	7-11	**National Safety Congress** Stevens Hotel, Chicago, Ill.
	16-18	**Independent Petroleum Association of America** Dallas, Texas
	20-24	**American Dietetic Association** Hotel Pennsylvania, New York, N. Y.

DECEMBER

	10-12	**National Association of Railroad and Utilities Commissioners** Miami, Fla.

Wisconsin Utilities Association

A. P. GALE, Madison, executive vice-president of the Wisconsin Power & Light Co., was elected president of the Wisconsin Utilities Association by active members of the Association in their annual ballot by mail. He succeeds Bruno Rahn, who has been president for two years. As retiring president, Mr. Rahn becomes chairman of the Advisory Committee of the Association.

Ralph E. Moody, Racine, executive vice-president of the Wisconsin Gas & Electric Co., and Wisconsin Michigan Power Co., was elected vice-president, succeeding Mr. Gale.

Louis T. Smith, secretary and treasurer of the Milwaukee Gas Light Co., was elected treasurer, succeeding John Dockendorf.

The new officers took office at the beginning of the Association's fiscal year on May 1. They were installed at a dinner in Milwaukee on Thursday, May 9.

Gas Range Month

Throughout Indiana during the month of May, gas range dealers and gas companies cooperated in their annual showing of modern gas ranges under the sponsorship of the Indiana Gas Association. The activity emphasized CP gas ranges.

Accounting SECTION

F. B. Flahive, *Chairman*
E. N. Keller, *Vice-Chairman*
H. W. Hartman, *Secretary*

Depreciation in Relation to Income Taxes

Prepared by a Subcommittee of the General Accounting Committee (1938-1939), James Comerford, Chairman.

THE chief source of our Federal government's revenues during the past twenty-five years has been the income tax, and since depreciation has always been a proper deduction in the determination of net income, it is of vital importance that proper allowance for depreciation be made.

In order to present a proper background it would be of interest to review briefly the early development of depreciation theory and practice in this country. Accounting for depreciation was practically unknown during the early life of industry. When property was written off, if at all, it was usually credited against the asset account and charged to surplus. Expediency to a large extent controlled the charges and in some instances early income statements explained that actual expenditures on repairs and replacements kept the plant from depreciating. The Supreme Court even failed to recognize any provision for retirement prior to sixty years ago. (United States versus Kansas Pacific Railway [99 U. S. 459] in 1878.) This was true of industry in general until the enactment of income tax legislation and public utility regulation by state commissions. Naturally, this interest deepened as the rates of tax on income increased. We know that sharply different concepts and interpretations of the meaning of depreciation still exist and that controversial issues have been developed with greatest intensity in the field of public-utility regulation. This no doubt has been the cause of much that is contradictory, ambiguous and confusing in the language of the courts and text writers.

Present Policy Studied

The purpose of this paper is to discuss depreciation in income tax law and the development of the Bureau's policy and administrative procedure under successive Revenue Acts and particularly its present policy under Treasury Decision 4422.

Under the 1909 Act, Congress levied an excise tax of 1% on net income in excess of $5,000. In ascertaining net income, it provided "a reasonable allowance for depreciation of property, if any." The Revenue Act of 1913 inserted the phrase "by use, wear and tear" to the provision for corporations. It also provided for individuals, "a reasonable allowance for the exhaustion, wear and tear of property arising out of its use or employment in the business." This same clause was continued in the 1916 and 1917 Acts, adding the words "or trade" after "business." Obsolescence was introduced as a part of depreciation in the 1918 Act, by the addition to the 1916-1917 provision of the clause "including a reasonable allowance for obsolescence." Since then there has been no statutory change.

Prior to 1924 there was no statutory provision or mention in the general depreciation regulations for taking past depreciation into account in determining current or future depreciation allowances, except in the cases of mines and oil and gas wells. Article 204, Regulations 45, provided that:

> "the capital remaining in any year recoverable through depletion and depreciation deductions is (1) the value of his equity in the property at the basic date, minus (2) depletion and depreciation sustained whether legally allowable or not from the basic date to the taxable year. . . . ."

The Supreme Court refused to apply this principle in determining the gain or loss from a 1916 sale in the Ludey Decision (274 U. S. 295). Later, in the case of Burnet v. Thompson Oil & Gas Co. (283 U. S. 301), this regulation was upheld with respect to the deduction for depletion.

Depreciation Basis

The features of subsequent Revenue Acts, which had a direct effect on depreciation, dealt with the basis of property for the determination of future depreciation allowances and gain or loss from sale. The 1924 Act provided that the *basis* for depreciation was the same as for gain or loss from sale and that previous amounts allowed for loss and depreciation must be considered. In the 1926 Act, we find the same provision with "allowed" changed to "allowable." There was no further statutory change until the 1932 Act, when the concept of "adjusted basis" was introduced, viz.: the reduction of the basis by past depreciation "allowed (but not less than the amount allowable)." This provision has been continued in subsequent Revenue Acts.

In the Alpin J. Cameron decision, 8 B.T.A. 120 (1927) the Board held that the depreciation allowance for the current year can be no more than a prorata portion of the amount remaining after deducting past depreciation allowances, even where past depreciation was admitted to be excessive (Affirmed by Circuit Court of Appeals in 1932, 56 F.[2d] 1021). This decision was more revolutionary in its bearing on depreciation than the changed basis provisions of the 1924, 1926, and 1928 Acts. These same ideas were, therefore, incorporated in Art. 165, Reg. 69, and Art. 205, Reg. 74. This principle was likewise written into the 1932 Act by providing that the basis for depreciation, etc., should be the adjusted basis, i.e., the reduction of the basis by past depreciation "allowed (but not less than the amount allowable)."

Return-of-Capital Theory

In tracing the history of depreciation in income tax, it is essential to a proper understanding of the subject to include a brief review of Bureau policy and administration. The Bureau has always adhered to the return-of-capital theory as opposed to the reserve-for-replacement theory. Only property used in a trade or business may be made the subject of a depreciation deduction. Depreciation relates to fixed (capital) assets and not current assets. Hence, a decline in market value of inventory goods cannot be reflected by depreciation. Depreciation must be distinguished from mere shrinkage in value which is not the result of use or circumstances incident to use. It does not apply to bodies of minerals which through the process of removal suffer depletion, since other provisions in Acts cover such items.

The capital sum to be returned by depreciation allowances is the cost or other basis of the property, less expected salvage, in respect of which the allowance is made. To this amount is added the cost of improvements, additional facilities and betterments, and from it must be deducted retirements and sales. Present replacement value of property cannot be substituted for the cost or other allowable basis of the property.

The Internal Revenue Bureau has never prescribed any set plan or method for charging off depreciation over the useful life of the property, nor formally sanctioned any fixed rates of depreciation for particular properties. Fixed depreciation rates would be next to impossible; each business is a law unto itself with regard to depreciation, because each business may use its property differently, and may follow vary-

ing accounting policies with respect to repairs, maintenance, replacements, charges to capital account and to depreciation reserve. On the other hand, the regulations have for years urged that a reasonably consistent plan be followed. This has often been erroneously interpreted, both in and out of the Bureau, that depreciation rates be uniform from year to year. According to general depreciation regulations a depreciation allowance, in order to constitute an allowable deduction from gross income, must be accounted for either by deduction directly from book value of the assets or by a credit to a depreciation reserve account reflected in the annual balance sheet. In practice this requirement is met by keeping separate depreciation records for income tax purposes.

The policy of the Bureau was to allow depreciation either in equal annual installments (straight-line method) or in accordance with any other recognized trade practice, as for example over units of production. Modifications of these methods were permitted, where variations in expenditures for maintenance, variations of time in use, and other conditions caused the rate of deterioration of assets to change from time to time. Another requirement has always been that the allowance be reasonable. In this connection Mr. Justice Butler stated in Gambrinus Brewery v. Anderson, 282 U. S. 638,645, referring to Sec. 234(a)(7) of the 1918 Act: "It is well understood that exhaustion, wear, tear or obsolescence cannot be accurately measured as it progresses and undoubtedly it was for that reason that the statute authorized *'reasonable'* allowances to cover them in order to spread that element of operating expense through the years." This is the basic principle that most utility accountants have so vigorously propounded in recent controversial discussions on depreciation.

No Uniformity Until 1926

During the period 1915-1925, there was no uniform policy in checking depreciation allowances except in the case of depreciation on the unit-of-production basis in natural resource cases, because there was no definite placing of responsibility for the depreciation allowances in any one office or division of the Bureau. This period was naturally one of relatively slack and haphazard checking of depreciation deductions. Of course there were exceptions to this general practice both in field examinations and in final audits. Starting in 1926, we come into a period of increasing vigilance and we see the shaping of definite policy on depreciation. A 1927 development was the elimination of fully depreciated assets from the basis under the straight-line method.

Studies of depreciation undertaken by the Bureau of Internal Revenue in cooperation with nationally representative organizations of industry resulted in the publication of Bulletin "F" in 1931, which was issued for guidance of taxpayers and their counsel on the trend and tendency of official opinion in the administration of the depreciation provisions of the 1928 Act. In this bulletin the Bureau declares depreciation by items or groups of items having practically identical physical characteristics and length of life to be the soundest method of accounting, under which method losses are charged to income when useful life terminates before cost is fully returned through depreciation allowances. In cases where the taxpayer uses composite rates, loss on retirement of specific depreciable assets is no longer to be recognized unless it is clearly shown that the cost has not been recovered, after giving consideration to the relative weight accorded such assets in arriving at the composite rate.

In 1931, the Bureau also issued a pamphlet "Depreciation Studies," which lists, in great detail, various depreciable assets and depreciation rates applicable thereto. It contains an express warning that such rates are set forth solely as a starting point from which correct rates may be determined and are not to be applied arbitrarily. The estimates of useful life are for new equipment only. In applying any of the depreciation rates included therein, consideration should be given to salvage values, to that portion of service life already used, and to that portion of the cost or other basis already recovered through depreciation. The lists of assets shown were used extensively by a great many taxpayers in setting up depreciation records for book and tax purposes. These records were often very detailed, since they recorded the depreciable assets by items, units, or groups of property of like kind and length of life. It was these taxpayers who objected most strenuously when T.D. 4422 and Mimeograph 4170 were issued, since they set up their records with the idea that retirement losses would be allowed as indicated in "Bulletin F."

Morgenthau Reply

In December 1933 the Ways and Means Committee's proposal to reduce depreciation allowances by 25% resulted in the famous Morganthau reply with its promise to collect 85 million dollars annually by tightening the administrative policy of the Bureau in handling depreciation. This promise of careful administration of the depreciation provisions of the Revenue Act culminated in the issuance of Treasury Decision 4422 on February 28, 1934, followed by Mimeograph 4170, which now forms the basis for the determination of depreciation deductions for future tax returns and all income tax returns still open.

The practical effect of T.D. 4422 amending the depreciation regulations was, first of all, to place the burden of proof of the correctness of the deduction squarely upon the shoulders of the taxpayer and, secondly to spread the unrecovered cost, or other basis of any depreciable property, ratably over its remaining useful life. The unrecovered cost is determined by deducting the total depreciation accrued for income tax purposes from the cost or other basis of the assets. For example, a machine which cost $14,000 was estimated to have a life of 10 years. At the end of 5 years, the sum of $7,000 has been recovered through depreciation. Facts available then indicate a remaining life of 7 years instead of 5 years remaining out of the original estimate. The undepreciated balance of $7,000 is spread ratably over 7 years instead of over five years and the current depreciation deduction computed on the revised future life amounts to $1,000 a year instead of $1,400 a year as deducted in prior years. Since that portion of the cost of the property which has been returned through depreciation is eliminated in determining the amount currently allowable as a deduction for depreciation, no further consideration need be given fully depreciated assets.

Mimeograph 4170 issued for guidance of Bureau personnel sets forth in detail the information required in support of depreciation deductions. The first re-

Natural Gas Accounting Problems Studied

With approximately 125 accounting executives in attendance, the accounting conference held May 6 in Houston, Texas, as a part of the Natural Gas Convention was hailed as a conspicuous success. Robert E. Hull, of the United Gas Pipe Line Co., Shreveport, La., chairman of the Southwest Regional Committee of the Accounting Section, presided at the all-day meeting which focussed attention on natural gas accounting practices.

Following Mr. Hull's opening remarks, C. E. Packman, Middle West Service Co., Chicago, presented the highlights of the Spring Accounting Conference which was reported in the last issue of the MONTHLY.

Francis B. Flahive, chairman of the Accounting Section, spoke briefly on the increasing importance of the accountant in the nation's business life, which has resulted in new problems and greater responsibilities.

Natural gas accounting from the public accountant's viewpoint was covered in a valuable contribution by H. W. Goodson, C.P.A., Haskins and Sells, Dallas, Texas.

The morning session concluded with a discussion of Customer Accounting and Customer Relations. This part of the program was arranged by E. N. Keller, of Philadelphia, vice-chairman of the Accounting Section.

A scholarly review of "Natural Gas Accounting from 1910 to 1940" by L. L. Dyer, comptroller, Lone Star Gas Co., Dallas, Texas, was the principal feature of the afternoon session. The remainder of the meeting was devoted to an Open Forum during which questions and answers on a variety of subjects brought out a wealth of valuable information.

quirement is that full and complete information with respect to the past history of depreciable property accounts must be furnished. A second requirement states: "A taxpayer is not permitted under the law to take advantage in later years of his prior failure to take any depreciation allowance or of his action in taking an allowance plainly inadequate under known facts in prior years." It emphasizes that one of the principal purposes of T.D. 4422 is to place the burden of proof upon the taxpayer, and to require that all schedules and other necessary data be prepared by the taxpayer and not by the examining agent.

The new depreciation policy of the Bureau is further amplified in Mimeograph 4170 by the introduction of three principles not mentioned in T.D. 4422. These principles provide:

1. That when an account contains more than one item it will be presumed that the rate of depreciation is based upon the average life of such assets;
2. That no losses will be allowed on ordinary retirements where average rates are used, but instead, the entire cost of the asset retired, adjusted for salvage, is charged to depreciation reserve;
3. That if the rate of depreciation is based on the longest lived asset in the account, losses on normal retirements are allowed.

The first two principles are in reality only a further development of the composite rate theory more fully described in Bulletin F and have been established as proper by a number of Public Service Commissions in dealing with depreciation accounting. Accompanying the Mimeograph was a form of schedule prepared by the Bureau for use by taxpayers in presenting data in support of depreciation deductions. However, it was pointed out that any form which clearly set forth the information required might be used.

Bureau Meant Business

The fact that the Bureau really meant business in administering its new depreciation policy was soon brought home by examining officers who served notice on many taxpayers that the information and data called for in T.D. 4422 and Mimeograph 4170 would have to be submitted before deductions for depreciation would be settled. In order to avoid unnecessary work and expense on the part of taxpayers, examining agents in their review of cases were cautioned by the Bureau to observe the following instructions contained in the Mimeograph:

"If upon the review of the return of any taxpayer it is apparent that the deduction claimed for depreciation is a very minor factor in determining net income, or that the facts indicate conclusively that the deduction claimed in the return is not in excess of the correct amount, or where it is clearly evident that no taxable income will be developed, the schedules need not be furnished 'for such year.'"

Likewise, if the taxpayer has previously prepared and filed data for the proper determination of the allowable depreciation for prior years' returns, it will not be necessary to duplicate the information.

A review of the section of the Mimeograph dealing with the retirement of assets indicates that in certain instances losses on retirements may be allowed even where the average rate method is used. For example, where the taxpayer, by clear and convincing evidence, shows that the disposition of assets resulted from causes not contemplated in fixing the depreciation rate or from the abandonment of a complete plant unit, losses on retirement of such assets will be allowed. Regardless of what method of depreciation is adopted, it is necessary to make profit or loss computations in cases where the disposition of assets is the result of casualties, sudden obsolescence or sales.

Application Discussed

Considerable discussion arose over the application of the clause in Section 113(b) of the 1932 Act to the effect that the proper adjustment of basis for past depreciation should be:

"to the extent allowed (but not less than the amount allowable) under this Act or prior income tax laws."

One of the points raised by taxpayers was that this provision meant merely the aggregate of all depreciation allowable in the past, or the aggregate of all depreciation allowed, whichever was the greater. The Bureau settled this point in Art. 23(1) 5, Reg. 86, in which we find the requirement that the rule be applied to each year separately, in arriving at the accrued reserve for tax purposes. Another matter in dispute was whether or not this principle could be applied retroactively to the settlement of a return for a year prior to 1932. It is reasonable to assume that this problem will not be particularly bothersome since, in most instances, it would be difficult in the case of large corporations to prove that the deduction for depreciation allowed in closing a return differed from the amount allowable.

Still another important question is whether or not depreciation claimed in a return showing a net loss will be held to have been allowed (for a year closed after 1931), even if the amount allowable is later found to have been much lower. On this point the Bureau ruled in I.T. 2944, that:

"depreciation claimed as a deduction in a return which has been accepted by the Bureau is the amount 'allowed' for that year."

The courts have now placed a new interpretation on the word "allowed" as used in Section 113(b)(1)(B) of the 1932 Act, in the Pittsburgh Brewing Company decision (CCA3) handed down November 7, 1939. The question presented was that:

"depreciation claimed by the taxpayer in its income tax returns in amounts in excess of those legally allowable have been 'allowed' within the meaning of Sec. 113(b)(1)(B), although no taxable income was offset thereby."

The Court reversed the Board of Tax Appeals by holding that:

"In computing the basis for gain and for depreciation in 1933 and 1934, cost must be reduced by depreciation deducted for prior years only to the extent that it was applied against taxable income. The word 'allowed' in Sec. 113(b)(1)(B) of the 1932 Act is to be so construed."

This decision does not mean that all depreciation claimed by a taxpayer in its income tax returns, not applied against taxable income, may be restored. For example, suppose that a taxpayer's return showed a loss of $50,000; that the depreciation deducted in that return amounted to $40,000; and that later it was determined that depreciation properly allowable for that year amounted to $25,000. According to the Pittsburgh Brewing Company decision the excess of the amount deducted on the return over the amount "allowable," being $15,000 in our example, would be restored to the basis for computing gain and depreciation in subsequent years.

There are leading accounting authorities who support a somewhat similar theory for accounting purposes, i.e., that depreciation must be earned if it is to be charged off. This is a highly important change in principle because until this decision the Board of Tax Appeals and the courts had upheld the Commissioner in his claim that depreciation reported in returns that have been closed was "allowed," whether or not there was taxable income from which to make the deduction.

Closing Agreement

Under Section 3760 of the Internal Revenue Code it is now possible for a taxpayer to enter into a closing agreement in writing with the Commissioner which stipulates in advance how certain items will be handled in computing the company's profit for any taxable period. Such agreements become final if approved by the Secretary, the Under Secretary, or an Assistant Secretary, within such time as may be stated in the agreement.

On December 4, 1939, Secretary Morgenthau made public the terms of the first closing agreement under Section 3760, which was entered into by the Treasury with Colt's Patent Fire Arms Manufacturing Company. This agreement determined in advance what depreciation and obsolescence allowances would be permitted on plant and equipment for income tax purposes and for calculating allowable profit on armament orders under the Vinson-Trammell Act as amended by the National Defense Act. The Secretary pointed out that such agreements gave taxpayers nothing that they could not receive ordinarily under provisions of the law. It was further explained that all closing agreement provisions must stand the Bureau's test of reasonableness, even though they might have the War or Navy Department's certification. The only advantage gained is in knowing in advance what depreciation allowance would be accepted in determining taxable profit.

In any industry where the return of investment in fixed plant represents so high

(Continued on page 240)

Promoting Dealer Sales—Let's Crack the Bottleneck

By F. M. ROSENKRANS

New Business Manager, The Gas Service Company, Kansas City, Mo.

F. M. Rosenkrans

IT is an old adage that the development of the domestic gas business depends upon the additional volume of gas appliances which may be placed in customers' homes. As a result of providing more uses of gas in the home, the customer is willing to pay for the increased consumption because of the living betterments enjoyed and the sense of value received.

The possibilities of marketing an increased volume of appliances through dealer sales, offer a potential increased placement of appliances over and above those which the utilities may secure by operating solely through their own sales departments. Recognition of these factors by gas companies has resulted in the development of many types and kinds of dealer sales plans to encourage and assist dealers in securing additional appliance business.

Basic Principles

It is not my object in this presentation to survey the various practices now followed by many gas companies in assisting in promoting dealers' interests in additional appliance sales, but rather to review a few of our observations of the basic principles of why the dealers are in the gas appliance business, and some of the methods that we have found in our own operations that were most helpful in aiding them to increase their business.

It is recognized that any particular plan developed must be based to meet local conditions and problems. Habits and methods of living by people in various sections of the country vary as do types of communities. A plan particularly adapted to one situation may necessarily have to be altered to fit another set of conditions in another situation.

It has been said that you should know the other fellow in order that he may know you better. By getting acquainted with your dealer, we in the gas business have a better understanding of his problems, hopes and ambitions and in turn there is a better understanding by him of our problems. Through this we can achieve a common understanding, work out plans that are mutually beneficial, and march toward the goal which is mutually profitable—to the dealer greater appliance sales and to the utility company greater domestic load.

It may be well at this time to review a few observations of the various types of dealer groups which we have found. The first and rather large group is composed of those dealers whose gas appliance business is incidental to their primary or main business, such as hardware stores, furniture stores, department stores, etc. The appliance business represents only a percentage of their total primary business but is related to the household furnishings of whatever nature they may be—hardware, furniture, etc., that the merchant purveys.

A second type of dealer comprises those who have appliance specialty stores selling exclusively gas and electric appliances. Those dealers have less diversity of interest and are primarily furnishing appliance conveniences for the home.

The third group may be classified as the heating and plumbing trade, who are not only interested in the equipment that they may include in improvements and repairs to old buildings, but also in new equipment for new buildings as well as the services they offer in making installations.

Dealers Want Profit

The dealers are in business for profit. It is for the profit motive alone that they are in the business of selling appliances and the allied installation services. The dealer can be persuaded to spend advertising and promotional money only where direct profit result may be seen, or may be reasonably hoped for. The dealer does not have any interest in the profits made by the gas utility from gas supplied, and therefore does not have this motive to confine his appliance sales activities strictly to gas equipment. It is perfectly natural for him to follow the easiest sales path, selling the customer such equipment as receives most ready acceptance at a profitable price. A customer who appears in the dealer's place of business to buy a stove may be as readily sold a wood, coal or oil range as a gas range. On the other hand, if the electric range business becomes active enough through local promotional activities of the electric utility, dealers may drop any interest they may have in the sale of gas ranges and sell electric ranges because of more ready profits and greater acceptance that might accrue from this easier sale.

There is no ready formula by which a dealer's business in gas equipment may be raised, or by which his interest may be focused entirely upon gas equipment. In The Gas Service Company group we have been working for some time on the problem of enhancing dealer sales and have put into effect some plans that have proved to be of great assistance. The plan incorporates first, the financing of dealer paper; second, dealer education and sales helps; and third, coordination of dealer sales programs with the utility's sales programs.

Financing Aid

It is our view that one of the most important sales aids that can be given a dealer in developing his gas appliance business is offering aid in financing dealer paper. Due to economic conditions brought about by the depression, the providing of long periods over which a customer can pay for merchandise has become an essential part of present day business. To customers of lower incomes the matter of long time payment has provided the means for equipping themselves with the essential appliance conveniences, and paying for them out of regular monthly income. This enables the customers to provide themselves with appliance conveniences that they never could provide if only cash or short time payments were in force.

This trend in business methods has brought to the fore with both the dealer and the gas utility, the problem of financing customer merchandise paper. It was our view that the greatest cooperation and assistance we could render to dealers in our communities is to provide a plan for handling dealer merchandise paper so that long terms could be extended to his customers, or the same terms extended that may have been provided by our company through financing arrangements on merchandise paper. Such offers of financial arrangements, if incorporated in dealer cooperative plans offered by our company to appliance dealers, would be most effective. The dealer then would be in position to actively press his gas appliance promotional program and would be encouraged to do so energetically and with satisfactory results.

In view of the importance of providing financing, our organization has worked out

Address before Natural Gas Convention, Houston, Texas, May 6-10, 1940.

a plan in cooperation with the local banks in our principal communities for the handling of dealer merchandise paper.

The first step in working out this finance plan is agreement between our company and the local bank. The local bank agrees to purchase such dealer merchandise paper as our company offers to them, without endorsement by our company, it being agreed that the local gas company shall make the collections on their monthly billing, reimbursing to the bank the monthly payments. The gas company further guarantees to take up any paper which may become sixty days delinquent. Of the normal carrying charge of five per cent per year on the principal amount of the contract, our company retains a portion of this charge for our services, the balance going to the bank for interest and other service charges. The local bank handles this paper in its personal loan department, setting up individual customer accounts.

Dealer Contracts Purchased

Having negotiated this contract with the local bank, our local gas company is then in position to offer a financial plan to the dealers. This plan is a simple recourse agreement whereby we offer to purchase such contracts as the dealer presents, subject, of course, to gas company credit approval, reimbursing the dealer for the cash sales value of the gas equipment sold. It is understood, of course, that the local gas utility collects the carrying charge under their monthly billing. The dealer gives the customer to understand that he will be billed monthly by the gas company for the merchandise he has purchased.

Our gas companies provide the dealer with contract forms which are chattel mortgage contracts with note attached. This note, of course, is for the full amount of the financed amount of the appliance plus carrying charges and, of course, is signed by the customer. Under the chattel mortgage form of contract the equipment is given as security for the note and when presented by the dealer, is endorsed in blank by the dealer.

According to the arrangements made with the local banks the length of time payments has been extended to thirty-six months or three years. Of course, if the paper becomes sixty days delinquent our local company takes it up from the bank, and under the recourse agreement with the dealer, passes it back to the dealer who reimburses the gas company or substitutes other paper for the unpaid balance of the note.

Another feature of the plan offered is that there has been no designation as to any down payment, the only requirement made being that the dealer shall collect the state sales tax and remit the same in accordance with requirements of the state laws. We do not finance the sales tax but will finance the entire principal amount of an appliance sale.

One of the problems encountered in working out financing plans has been the contingent liability of the gas utility in such dealer finance arrangements. The plan outlined above brings to low limits the contingent liability necessary to be footnoted on the gas company financial sheets, the liability being limited only to such bad paper as they are unable to return to the dealer under the recourse agreement.

While the dealer finance plan that we have developed and which I have outlined to you, is a comparatively new thing in our company, it has been a great aid in assisting dealers to develop business. From some information that I now have on the operation of the plan for six months in our companies in Oklahoma, where our gas companies are not permitted to merchandise, we have seen some dealers double and even triple their business. In other sections where the plan has been in operation for a comparably short time we have seen an enhancement in the business volume which the dealers have been able to procure. Naturally, with any plan of financing that may be presented, some percentage of the dealers have undertaken more aggressive sales with good results and others, of course, have not made the efforts hoped for when the plan was accepted.

This brings us to the second phase of our plan for promoting dealer sales, which is dealer education and sales helps. In any situation the local gas company must take the initiative, not only in encouraging dealers, but using all their resources and avenues in the matter of education and helping them to help themselves. We know that this

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National CP Ranger Club Awards Made for 1939 Sales

RAPIDLY becoming one of America's outstanding sales organizations, the CP Ranger Club, sponsored by the American Gas Association, is promoting the sale of CP gas ranges on a national scale. Now in its second year, the CP Ranger Club provides national recognition, cash prizes, awards and all-expense trips for outstanding salesmanship, and a total of 12,720 gas range salesmen are registered in national and regional competitions endeavoring to win the coveted titles and awards.

In announcing CP Ranger Club awards for 1939, George L. Scofield, chairman of the Domestic Range Committee of the American Gas Association, stated that sales of Certified Performance gas ranges increased 40% the first two months of 1940.

Top honors went to Mrs. Cora Riegelman of Barker Brothers, Los Angeles, California, whose total of 280 CP gas range sales in 1939 elected her to the post of National Commander of the CP Ranger Club for 1940.

Second among the "Big Three" to become officers of the 1940 CP Ranger Club was Edmund Vojae, also of Barker Brothers, whose sales of 227 CP ranges in 1939 won for him the title of National Vice Commander. Robert E. Slater of the same company was the runner-up with 157 sales, and occupies the post of National Adjutant for 1940.

For having sold the largest number of CP gas ranges in the 16 CP regions into which the country was divided for the 1939 awards, the following were elected Regional Commanders of the 1940 CP Ranger Club.

Territory	*Name of Salesman and Company*
Rhode Island, Mass., Vermont, New Hampshire, Maine, Conn.	George H. Porter, The Bridgeport Gas Light Co., Bridgeport, Conn.
Metropolitan and Greater N.Y.C. also Central Hudson Gas & Elec. Corporation	Mrs. Alice Mangan, The Brooklyn Union Gas Co., Brooklyn, N. Y.
New Jersey, Eastern Penna., Del., Md., and District of Columbia	William J. Pender, Elizabethtown Cons. Gas Co., Elizabeth, N. J.
Virginia, W. Va., North Carolina, South Carolina	Herbert P. Burgess, Roanoke Gas Co., Roanoke, Va.
Georgia, Alabama, Florida	Burt J. Coulon, Atlanta Gas Light Co., Atlanta, Ga.
Michigan and Wisconsin	Harry Greenwood, Michigan Consolidated Gas Co., Grand Rapids, Mich.
Indiana	C. D. Parks, Northern Indiana Public Service Co., Hammond, Ind.
Illinois	Goodman Overton, Western United Gas & Electric Co., Aurora, Ill.
Texas and Oklahoma	Troy B. Jackson, Dallas Gas Co., Dallas, Tex.
Kansas, Colo., Wyoming, Mo.	C. H. Manney, Gas Service Co., Fort Scott, Kansas
Nebraska, Minn., N. Dakota, S. Dakota, Mont., Iowa	Harlan D. Burnside, Minneapolis Gas Light Co., Minneapolis, Minn.
California, Washington, Oregon, Nevada, Ariz., Idaho	Ralph E. Nelson, Barker Brothers, Los Angeles, Calif.

Attractive trophies were awarded these high gas company and dealer sales representatives for their accomplishments.

Domestic Sales Conference Stresses New Gas Promotional Activity

UNDER the leadership of Davis M. DeBard, vice-president of Stone & Webster Service Corp., New York, and chairman of the Commercial Section, two lively meetings devoted to domestic gas sales problems were held May 6 and 7 during the annual Natural Gas Section convention in Houston, Texas. These sessions attracted a large attendance and provided many new ideas for natural gas sales managers.

An innovation which proved the outstanding success of the meetings was the "Information Please" program which was a feature of the first session. Taking a leaf from the popular radio programs of this character, a rapid-fire question and answer program was presented with Walter C. Beckjord, president, American Gas Association, acting as master of ceremonies. The gas experts who answered questions with remarkable accuracy were: R. C. Anderson, Houston; J. H. Warden, Tulsa; J. G. Tooker, Wichita; B. T. Franck, Milwaukee; Mildred Clark, Tulsa; and T. J. Strickler, Kansas City.

Public Relations Stressed

In the opening address, W. L. Woodward, Zenith Gas System, Inc., Alva, Okla., urged gas companies to be courageous and aggressive in promoting good public relations. "It is good business," he pointed out, "to practice selectivity in load building, but most dangerous to practice selectivity in public relations." He particularly stressed the importance of replacing obsolete gas appliances which are a source of great annoyance to their owners.

The results of gas merchandising should be judged in terms of gross income produced in comparison to load building costs, V. H. Moon, Central Service Corp., Chicago, said in his talk on "Merchandising and Jobbing" in which he urged a more careful analysis of merchandising expenditures. "We should promote uses which have profitable characteristics and at the same time constitute fairly large markets," he said.

"What Women Want in Gas Appliances" according to Arthur Hirose, director of research, *McCall's Magazine*, are constant improvements and new conveniences as well as economical service. He called women not only great *buyers* of consumer goods like gas appliances but also great *sellers* of appliances, thus making that sex doubly important to the gas industry.

An able discussion of dealer sales aids by F. M. Rosenkrans, The Gas Service Co., Kansas City, Mo., which concluded the first session, is printed in full in this issue.

Leading off the Tuesday afternoon session, F. M. Foster, Southern California Gas Co., Los Angeles, Calif., described the appliance servicing activities of his company. He stated that dealers in increasing numbers were asking for instruction and advice and that it was up to the gas company to take care of these demands.

H. Carl Wolf, president, Atlanta Gas Light Co., Atlanta, Ga., gave a stimulating talk on "Facelifting by Advertising, Displays and Showmanship." He emphasized the need for more dramatic and colorful methods of advertising and selling. Later in the program Mr. Wolf showed a color movie of the Decade of Progress Celebration in Atlanta, Ga.

A strong plea for greater cooperation between the gas utilities and the manufacturers and a more thorough understanding of national problems was made by Frank H. Adams, president, Association of Gas Appliance & Equipment Manufacturers, and vice-president, Surface Combustion Corporation. Asserting that one cooperative objective was to raise the quality of appliances, Mr. Adams praised the CP range program for its emphasis on quality [illegible] of price and called it "a fine example of cooperative action in the gas industry [illegible] which the major feature is 'selling up' instead of 'selling down.'"

Calling attention to A. G. A. approval requirements for gas appliances, Mr. Adams concluded that there "is great room for cooperation by the utilities in this field. There is need of a better understanding of the problems which the Laboratory, the subcommittees and the various parties represented on them face in their individual fields. There is need of more interest in these problems and from a national rather than a local viewpoint."

R. S. Agee, A.G.A.E.M. promotion manager, contributed a sound slide film on the promotion of CP gas ranges.

The concluding feature of the domestic sales program was the presentation of a highly entertaining skit covering appliance promotion by Home Service. The cast included H. Vinton Potter, Albertine Berry, Alice Livermore, Mary Frances Reece, Margaret Marable, Gertrude Payne, and Jane Tiffany Wagner.

Home Service Variety Show Is Hit of Houston Convention

ONE of the most popular features of the natural gas convention in Houston, Texas, was the Home Service Variety Show presented at first luncheon session of the convention on Monday, May 6. Gay colored posters and handbills distributed to the large gathering announced the type of program being held.

Miss Evelyn Barton, Lake Charles, La., and Miss Jessie McQueen, home service counsellor, American Gas Association, New York, pose for a picture during the Natural Gas Convention in Houston, Texas.

H. G. Thuerk, of the Utility Management Corp., New York, and chairman of the Committee on Community Development, set the theme of the meeting when he discussed a suggested program of community development activities for gas companies. He outlined in a convincing manner the steps being taken by his committee to encourage greater utility participation in local community affairs. This program was described in an article in the April issue of the MONTHLY.

Following Mr. Thuerk's presentation, Albertine Berry, Lone Star Gas Co., Dallas, who acted as chairman of the Variety Show, introduced the speakers who gave short talks on the ways in which home service fits into the community development program.

Mary Alice Crosson, West Texas Gas Company, Lubbock, outlined instances where adult groups in a community call upon home service for assistance. Her topic was entitled, "The Big Audience." Jessie Read, San Antonio Public Service Company, spoke on, "Children's Matinee—Work With the Young Folks." She described particularly, the Cook—Play—Learn Club composed of young people, for Saturday morning classes during the summer and the College-Hi Revues, which are also demonstrations participated in by representatives of the various schools and colleges in the city.

Evelyn Barton, United Gas Corporation, Lake Charles, La., described the "Best

Living" activity held through the United Gas System, in Texas and Louisiana. This activity involves smaller towns the gas company they cooperates with the local dealers in special cooking schools sponsored by women's clubs. Miss Barton's title, tying in with the Variety idea was "The Man in the Gallery."

"Home Service Must Have a Sense of Humor" was the convincing advice of Emma Wood, Louisiana Public Utilities Company, Lafayette, who had the whole audience of several hundred keenly enjoying her experiences.

The talks were summarized in a paper by B. C. Adams, vice-president and general manager, The Gas Service Company, Kansas City, entitled "The Director Makes a Curtain Call." Mr. Adams was unexpectedly called home and the discussion was presented by F. M. Rosenkrans, new business manager of the same company. Mr. Adams pointed out the particularly strong public relations aspect of home service work. Their acceptance in community life has been an important link in presenting the gas company to the community.

A humorous sidelight of the meeting was a song on home service which was sung by the entire audience. Noel McGregor, a business man in Houston, led the group singing which concluded this well-attended and interestingly presented program.

Home service showed its dramatic abilities in another part of the program at the Natural Gas Convention in a skit entitled "Appliance Promotion by Home Service." The skit opened with a home service director sitting at the kitchen desk reading a memorandum from the sales manager announcing that he had received word from the American Gas Association of three sales campaigns on the range, refrigerator and water heater and he wanted the opinions of the home service department on what they could do to cooperate in the campaigns. The time of the skit was 8 o'clock in the morning, one half hour before the office opened. The girls as they came in, developed different ideas on appliance promotion, with the gas refrigerator used as the appliance upon which most of the demonstration was hinged.

This presentation was given by Jane Tiffany Wagner and Margaret Marable of Servel, Inc. The part of the home service director was taken by Albertine Berry, Lone Star Gas Company, and the sales manager by H. Vinton Potter, Oklahoma Natural Gas Company. Other home service people included Bessie Smith, United Gas Corporation, Houston, Mary Frances Reece, Oklahoma Natural Gas Company and Gertrude Payne, Lone Star Gas Company.

In the Information Please program presented as part of the Commercial Section program, home service was one of the six participants. Due to severe illness, Mildred Clark, Oklahoma Natural Gas Company, and past Chairman of the Home Service Committee was unable to be present, and Jessie McQueen of the American Gas Association substituted.

Sorry, Mr. Sorby

In an article on the Hartford Progress Exposition in the May issue, the A. G. A. MONTHLY inadvertently placed Carl Sorby with the Cribben and Sexton Company instead of his rightful position as sales promotion manager of George D. Roper Corporation. He is hereby restored to the Roper organization, with our apologies. Incidentally, Mr. Sorby is one of the most outstanding goodwill ambassadors of the gas industry and is much in demand as a speaker and demonstrator throughout the country. At this writing (May 21), he is giving a CP range demonstration for the Kansas City Gas Company in Kansas City, Mo.

PROMOTING DEALER SALES

(Continued from page 229)

program is being carried out by many gas companies—educational meetings by dealer groups in the community and of the dealers' own selling organizations.

The program carried out by the A.G.A. E.M. in the promotion of the Certified Performance range is one of the outstanding examples of dealer education on the market offered by this new equipment, methods of approaching this market, sales appeals, and sales helps. The program that has been carried out by such men as Bob Agee and John Bogan, representing the gas range manufacturers, has been a wonderful aid, but because of the national picture, the time has been very limited for any localized groups. Dealers must be given the present day methods of cracking the market, and the ambition and hope for greater profits. If the dealer can be shown that greater profits can be secured by the use of these sales helps, he then will be glad to expand his appliance department, spend more money in gas appliance promotion, and realize even greater profits.

In order to carry out concerted and effective activities we are endeavoring to tie in the dealers with our gas company sales program. In a number of our larger situations we have now employed dealer contact men and, in some cases, have invited dealers to sit in on the planning of a sales campaign. In all of these meetings and discussions we find the profit motive predominant. Through the educational programs giving the glimpse of the market and working toward the raising of standards of equipment, dealers are finding a greater dollar profit margin per sale.

Advertising assistance is very essential. Through advertising aids the dealer's own advertising is made more effective. This advertising is tied in with the local company advertising both by carrying the dealer's name in the gas utility advertising, and referring to dealers for various types of appliances.

A dealer aid of outstanding importance is the cooperation given by our Home Service organization. This is indeed not only greatly appreciated and used by our various dealers, but has a most important bearing upon the success achieved by the customer in using new appliance conveniences, particularly gas ranges.

Our Home Service organization is available to all of our dealers. The three avenues followed in the work may be generally classified as: A. education of dealer sales people; B. following up all dealer gas range equipment after it is installed in the home; and, C. the public education carried on through group and public demonstrations of the new things that make for better homes and easier living on the part of the housewife. Through the Home Service Department activities a real tie-in is given by creating the desire for the new things in the light of modern methods, placing of this information in the hands of the dealer sales people, and the final follow up on the installation of the equipment in the home of the customer.

While the development of our plans to enhance dealer sales to date is comparatively new, we are greatly encouraged by the fine response on the part of our dealers.

Window Display Contest Closes June 15

AN opportunity for display men to win a few extra dollars for their summer vacations as well as some well-deserved recognition is offered by the Window and Store Display Committee of the American Gas Association. The committee, headed by H. V. Potter, chairman, is staging a contest for the best gas refrigeration and water heating displays—either window or store.

Prizes of $15.00 each will be awarded for the best water heater display and for the best refrigeration display. Second best displays will win awards of $10.00 in each division. The winners will be announced in the Summer issue of the A. G. A. Window and Store Display Bulletin. Displays will be judged by McCann-Erickson, Inc., New York.

To enter just send photographs of your refrigeration and water heater displays to H. V. Potter, American Gas Association, 420 Lexington Ave., New York, N. Y. before June 15. The only restriction is that displays must have been made up after May 1, 1939. The name of the company and display man, as well as the date of the display installation, must appear on the back of each photograph. Comment regarding the display will be appreciated by the committee.

Industrial Sales Conference at Houston Augurs Greater Natural Gas Loads

THE industrial gas delegation to the Natural Gas Convention in Houston, Texas—125 strong—wasted no time in getting down to cases at the Rice Hotel on Monday, May 6, for the program was full—and by 9:30 A.M. was deep in the consideration of: gas engine power, industrial marketing, interruptible load applications, boiler codes, load-building in the commercial cooking and baking field, servicing, the utility's part in industrial development, publicity and advertising, and sales procedures.

Program Committee Chairman, Frank S. Kelly, Jr., Arkansas Louisiana Pipe Line Co., Shreveport, welcomed the group; introduced Franklin T. Rainey, Columbus, Ohio, chairman of the Association's Industrial Gas Section, and presiding chairman of the session—and the show was on with first-actor D. W. Reeves, Oklahoma Natural Gas Co., Tulsa, and chairman of the Gas Engine Power Committee, probing the "Economics of Modern Gas Engine Power."

The boxing gloves are just an ornament but might well have represented the hard-hitting program of industrial gas topics which characterized the conference. At left is George M. Parker, St. Louis, speaking on industrial gas applications. Below are Frank S. Kelley, Jr., Shreveport, La., program committee chairman; Franklin T. Rainey, Industrial Gas Section Chairman; W. L. Childs, Houston, Texas; and Frank C. Smith, Houston.

Need Means of Financing Gas Engine Jobs

Gas engine load represents an annual consumption of from 26,000 to 44,000 cubic feet per horsepower with a most desirable load factor according to Mr. Reeves, and the saving in power costs to the customer is generally so great that "Much more gas could be sold profitably for the operation of gas engines—there are more than enough excellent prospects waiting to be sold to keep every engine salesman and every gas company salesman busy for several years." One of our commonest stumbling blocks, he asserted, is the "lack of adequate financing plans, particularly to assist the smaller dealer." Therefore it was recommended that gas utilities get behind the program of developing and making available more liberal financing plans for the purchase of gas engine equipment.

"It is common sense for gas engine salesmen to sell gas engines first, and their own make second—a policy often neglected with the result that we sell each other out of the picture, and purchased or diesel power is used," cautioned Mr. Reeves.

Concerning electric generation with gas engines, the speaker showed that, on the average, total overall costs for installations of 200 horsepower or less will run somewhere near 6.8 mills per kilowatt hour, and jobs will pay out in from one to four years. With gas engine life beyond twenty years, if they are properly cared for, our future in this field is obvious. In pursuing this load, however, we must remember "A good engine installation sells more, but a single bad one loses many prospects for us."

Walter N. Ford, Houston, Texas, points out how United Pipe Line Company attracts new industry to the Gulf South area by a strong institutional advertising campaign.

Age of Consumership Imminent

Guest speaker of the day was W. L. Childs, vice-president and general manager Reed Roller Bit Company, Houston. His analysis of "Basic Trends in Industrial Marketing" was inspired by long experience both with the subject and with industrial gas applications. One of the most significant of modern long-range trends in marketing technique is our "passing from an age of salesmanship to an age of customer consumership," said he. "Today sales must be supported by facts and satisfaction—and the ingredients of salesmanship are the improvement of product, the service, and the goodwill we can engender."

Labeling one major technique of industrial gas selling as "application engineering," Mr. Childs spoke of the importance of developing new uses for our product and paraphrased for industrial gas men an old adage—"we must make 2 flames of gas glow where one glowed before." Further, he urged, we must pay more attention to the public understanding of gas-industry. "The truth of the matter is that we have been so busy attending to our knitting—doing and producing the things men live by—that we have not taken time to set our

activities out in the proper light before the public."

Bakery and Cooking Loads Valuable

Following a "Report on the Present Status of the Code for Installation of Burners in Large Power Boilers," T. J. Gallagher, The Peoples Gas Light and Coke Co., Chicago, offered the fruits of his company's authoritative experience with "The Hotel, Restaurant and Bakery Load." Having "run the gauntlet" as far as types of jobs are concerned and long engaged in activities "covering most of the encounterable extremes," the Chicago company places a high value upon the commercial cooking load because of its favorable load-factor, lucrative rate, peak characteristics, reliability and opportunities for expansion.

To retain and develop commercial gas sales, Mr. Gallagher suggested a 4-point program: (1) Know your appliances and stress their special benefits to each particular prospect, (2) Study your competition to know what he has to offer and how it sells, (3) Offer specialized service so that the user feels that he is buying more than just gas and gas equipment, and (4) Advertise, even to the extent of fraternizing with customer groups, so that as much of your saleswork as possible is done in advance.

By way of demonstrating the effectiveness of Chicago's enlightened program of dealer cooperation, it was observed that "Dealer cooperation has allowed us to sell 600 retail bakers and commercial kitchens we would not have sold otherwise." Discussion on the technique of dealer cooperation ensued.

A cordial meeting of industrial gas leaders—left to right: D. W. Chapman, Chicago; Henry O. Loebell, Chicago; H. Carl Wolf, Atlanta, vice-chairman, Industrial Gas Section; and D. W. Reeves, Tulsa, chairman, Gas Engine Power Committee. Below is T. J. Gallagher, Chicago, chairman, Committee on Display at National Restaurant Exposition.

Finally, Mr. Gallagher presented a strong case for aggressive action in annexing commercial gas refrigeration and 180° F. commercial hot water business—noting that good gas equipment is now available, the time is ripe, and user interest is mounting daily.

New Interruptible Loads with Reformed Gas

George M. Parker, Mississippi River Fuel Corp., St. Louis, led off the afternoon session presided over by H. Carl Wolf, Atlanta, vice-chairman of the Section, with a 12-slide-talk on "New Industrial Gas Applications." Principle attention was focussed upon interruptible load applications and the utilization of reformed gases. The engineering of several new large jobs (chiefly in ceramic and metal fields) which represent sizeable revenues and play significant roles in leveling out the send-out curve, gave practical aid to all. Discussion was active.

Bringing Industry to Natural Gas

A long-neglected, though possibility-ridden subject, was presented by Walter N. Ford, United Gas Pipe Line Co., Houston, whose analysis of "Cooperation with Outside Promotional Agencies To Develop New Industrial Gas Customers" included statistics on his company's success in attracting new industry within its precincts and stimulating industrial development in the Gulf South area.

In the past five years this program has effected the establishment of 107 new gas-using industrial plants in the area, involving 37 million dollars of investment, 8,000 persons of new employment, and 10 billion cubic feet of new annual gas load. The percentage effectiveness is apparent when it is realized the company's industrial customers (excluding city-gate deliveries for sale by distribution companies) total 552 and the company's total sendout (city-gate and residential sales included) is 242 billion cubic feet per year.

Spearhead of the program is a series of full-page institutional advertisements which have been running for over a year, and will continue to run, in *Time, Business Week,* and similar media. Direct mail advertising based on reprinted national advertising is also used, as is cooperation with 128 Chambers-of-Commerce, 5 state agencies, and 43 railroads. Stated objectives are to: (1) develop the Gulf South industrially to reduce unemployment, increase payrolls, and increase taxable wealth; (2) bring markets to natural gas instead of taking natural gas to markets, thereby avoiding large capital expenditures; and (3) create new and additional markets for all classes of the company's service.

Harry W. Smith, Jr., A. G. A. industrial publicity director, graphically demonstrates why "Advertising is a lot of tripe unless it helps to sell."

Servicing Cooperation Vital to Sales

The matter of "Servicing Industrial and Commercial Gas Equipment" was handled by Carl A. Renz, Southern California Gas Co., Los Angeles, largest single distributor of natural gas for industrial uses in the world. The nature and diversity of the industrial load in the area under consideration was made plain in slides, as a preliminary to describing the flexible "order routine, service policy, and delegation of responsibilities for an 'ever increasing' operating department."

Among many interesting thoughts concerning closer control and more logical conduct of company service was that "the frequency of *routine* service calls is based, not upon guesswork, but upon the following factors: (1) annual company revenue, (2) value of account to sales department, i.e., expansion of business or competitive conditions in certain quarters, (3) extent to which customer is contacted by sales engineer, (4) condition and load factor of plant, and (5) number and skill of customer's operators."

Mr. Renz believes the most significant result of his company's carefully developed servicing policy is closer cooperation of sales and service departments, without conflict and usurpation of responsibilities, and replaced by mutual assistance and higher efficiency of operation.

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Carl Renz, Southern California Gas Co., Los Angeles, sees a "carefully" planned industrial gas service program as essential to keeping industrial "sales" and industrial "service" out of each other's hair but on each other's team . . . and told the Industrial Sales Sessions of the Natural Gas Convention in Houston (May 6) just how he plans his service program. There's a copy of his presentation waiting for you at Headquarters.

♦

Age-old—but one of the most-effective-for-the-money direct mail tricks in the books—is the single-page "satisfied-user-series" bulletin mailed over the same list month after month after month Anyone with even a trace of printing money can afford it, or, in a pinch, clever salesfolk can work it in mimeograph or multilith. As a sample technique we recommend Eclipse Fuel Engineering Company's McKee Boiler Installation Series using photographs and brief testimonial copy in typewriter type.

♦

In 1938, coffee was America's largest import—$137,000,000 worth—and in two years the national per capita consumption has jumped from 12¾ to 15 pounds (1,350 cups per adult per year figuring 54 cups per pound and 3/5 of the population as adult, if you like numbers). We also hear that U. S. hotels and restaurants buy 150,000,000 pounds of coffee annually. And so it goes—to prove that the little urn gas burner, however old and inconspicuous, has a lot to do with your paycheck and the stockholders' dividends.

♦

Last minute reports from Atlanta where the 1940 A. G. A. Hotel, Restaurant and Commercial Sales Conference ended May 31, indicate that there's more than meets the eye to this 180° hot water situation. A symposium on sales points which covered the requirements of eating and other commercial establishments, steam boiler jobs for sterilization, and booster-recovery systems—to say nothing of a powerful World's-Fair-sanitization-experience report by the Volume Water Heating Committee—supplied ammunition for landing a big, "coming" gas load, which you can't afford to be without. Write to "Going Ahead."

♦

Who's afraid of the Big Bad Wolf—the electric near-infrared ray heating lamp for baking industrial finishes? "Not us," agreed Hale Clark (Detroit), Fred Hess (Philly) and Don Jacobson (Chicago) at the Toledo Industrial Gas Sales Conference clinic on the subject. "It cannot seriously invade the convected-air finish-baking field—and, where it does have a place in production work, will be sore put to it to equal the results long obtainable with gas-fired radiant heating units."

♦

So useful has been Charlie Remschell's Gas Engine Handbook that nary a copy of the first printing is left . . . and the Gas Engine Power Committee, in session in Houston, Texas, during the Natural Gas Convention (May 7) voted to make a few adjustments and print a second edition. Here's high-load-factor natural gas business going to town—and you can sell it. Get your copy of the Handbook ($1.00) through "Going Ahead."

♦

Rambling through Texas, Louisiana, Alabama and Georgia, your correspondent finds the cotton industry weak in the knees from overproduction . . . but the industrial gas fraternity on its toes plenty with helpful fueling ideas for bolstering old king cotton (seed sterilization, lint drying, cotton oil refinery improvements, mill powering betterments, etc.). Somebody ought to write to somebody's congressman about what the gas industry is doing for the cause.

INDUSTRIAL AND COMMERCIAL NATIONAL ADVERTISING FOR JUNE

The National Advertising Committee of the Industrial Gas Section, J. P. Leinroth, chairman, and F. B. Jones, vice-chairman, announces that full-page advertisements will appear in the trade and business magazines listed below during the month of June. These advertisements are prepared in cooperation with the Committee on National Advertising as a part of the Association's national advertising campaign.

Metals Industry

THE IRON AGE (June 6) STEEL (June 10) METALS & ALLOYS METAL PROGRESS INDUSTRIAL HEATING	Higher quality, greater uniformity with GAS. Fort Pitt Spring, Pittsburgh, Pa.
THE IRON AGE (June 20) STEEL (June 24)	GAS gives precision control, speed and low fuel cost for National Supply Company, San Francisco, Calif.

Food Industry

BAKERS HELPER (June 8) BAKERS WEEKLY (June 1)	Warner-Daiber Bakery, St. Louis, Mo. "Finest equipped bakery in the United States," depends on modern GAS equipment.
BAKERS HELPER (June 22) BAKERS WEEKLY (June 29)	"Money in your pocket" with new GAS-fired ovens, says Vosse Bakery, Chicago, Ill.
FOOD INDUSTRIES	Better cookies and crackers, speeded production with modern GAS-fired equipment—Sunland Biscuit Company, Los Angeles, Calif.

Ceramic Industry

CERAMIC INDUSTRY	GAS used for glass-bending in plant of Gable Neon Sign Company, Detroit, Mich.

Hotels & Restaurants

HOTEL MANAGEMENT AMERICAN RESTAURANT	"30% to 35% saving in GAS" at Alms Hotel, Cincinnati, Ohio, with modern GAS equipment.
CHAIN STORE AGE (Fountain & Restaurant Section)	Neisner's, Buffalo, New York, speeds counter serving with modern equipment and GAS fuel.

Hospitals & Schools

MODERN HOSPITAL	Modern GAS equipment and appliances help solve food problems for Bergen Pines Hospital, Ridgewood, N. J.
AMERICAN SCHOOL BOARD JOURNAL	East Technical High School, one of Cleveland, Ohio's, largest schools, depends on GAS and modern GAS equipment in feeding its students.

Processing Industry

CHEMICAL & METALLURGICAL ENG'G	GAS used for glass-bending in plant of Gable Neon Sign Company, Detroit, Mich.

General Manufacturing

INDUSTRIAL POWER	Low cost hardening of intricate steel parts . . . with GAS—Reading Screw Company, Norristown, Pa.

New Methods of Improving Gas Service Studied at Annual Distribution Conference

D. P. Hartson

By D. P. HARTSON

Vice-Chairman, Technical Section

THE seventeenth annual Distribution Conference held at Houston, Texas, May 7-9, is now a matter of Association history, but the valuable information given out by over twenty speakers is being disseminated and studied from coast to coast. The discussions started in general meetings and particularly in luncheon conferences, undoubtedly have given many a distribution engineer reason to pause and question whether or not the other fellow's way of doing certain things doesn't offer some further economy or the possibility of giving even better service.

The papers were uniformly excellent and brought out valuable discussion. Many new faces were seen at the Distribution meetings, and it is hoped that these men, mostly from the West and Southwest, will have caught some of the spirit of serious study and deliberation for which Distribution Conferences are noted. It is earnestly hoped that these new men will continue to attend the conference.

Simultaneous Convention Sessions

Available to the distribution engineer were the sessions of the Natural Gas Convention at which papers on many subjects of general interest were given at the Natural Gas Transmission meetings which were held at the same time as Distribution Conference meetings.

The conference meetings started on Tuesday, May 7, with the Round-table Luncheon Conferences. Three subjects were covered at these conferences:

1. Construction and Maintenance;
2. Appliances and Appliance Servicing; and
3. Meters and Regulators.

The subject of Construction and Maintenance was discussed by two separate groups on account of the large number of people interested in these two subjects. The first group was led by E. G. Campbell, chairman, The Peoples Gas Light & Coke Co., Chicago, Ill.; the second by A. C. Cherry, chairman, Cincinnati Gas & Electric Co., Cincinnati, Ohio.

The subject of Appliances and Appliance Servicing was also discussed by two separate groups because of the number attending the luncheons, the first group being led by W. M. Little, chairman, Arkansas Louisiana Gas Co., Shreveport, La.; the second by J. M. Pickford, chairman, Northern Indiana Public Service Co., Hammond, Ind.

The Conference on Meters and Regulators was led by A. W. Fuller, chairman, Consolidated Edison Co. of New York, Inc., New York, N. Y. As in previous years, the discussions in these conferences were of outstanding interest and the participation was widespread.

At the final session held Thursday afternoon, E. G. Campbell summarized the discussions of the groups dealing with Construction and Maintenance. Mr. Campbell reported discussion by men from all parts of the country on a wide variety of subjects, chief among which was the matter of installation and replacement of services under various conditions, and the various means used by companies in different parts of the country in the work of leak detection, including leak surveys.

R. M. Conner, director, A. G. A. Testing Laboratories, congratulates Chairman C. H. Waring, of Kansas City, Mo., on his outstanding job of conducting the annual Distribution Conference.

The two meetings dealing with the subject of Appliances and Appliance Servicing were summarized and reported by W. M. Little. Mr. Little reported very active discussion over a wide range of subjects dealing with appliance servicing.

There was considerable difference of opinions as to just how far gas companies should go in their free service policy. The full value of free service, from the standpoint of maintaining public relations seemed to be appreciated by everyone and some representatives thought that this alone more than off-set the costs of free service. The discussions indicated, however, that in some companies there is a definite trend towards making a charge for some of the service work.

Service Charge Favored

The experience of those who have kept service records show that 75% of all service calls were made by only 25% of the total customers. It was believed that a nominal charge for certain types of service would greatly reduce the number of service calls, especially for the "chronic" customer. Mention was made of some companies that do no merchandising but refer all appliance service calls to private companies engaged in appliance repair.

The importance of customer and employee education in company policies and practices was also discussed in order that there be no misunderstanding of the service policy of the gas companies. In general, it was agreed that service policies depend on local conditions; the principal factors affecting such service policies being public relations, rate schedules, local ordinances, and last but not least competition.

Some of the representatives brought out that their practice in regard to CP ranges was to check and test thoroughly each range in the shop before delivery and connection at the customer's premises. It was thought that this practice, which consumed approximately 1½ hours per range, was well justified in the better service given to the customer. The use of the individual appliance regulator, which was to be the subject of a paper given later in the conference, came up for considerable pro and con discussion

at the luncheon conferences. The amount of servicing work required and the training necessary for employees to handle air conditioning outfits were also discussed. The question of venting gas ranges was another subject which received attention.

A. W. Fuller, who acted as chairman of the Conference on Meters and Regulators, reported that their conference had started off with a talk given by L. K. Richey, of the Michigan Consolidated Gas Company, Detroit, who presented a summary of the experiences in the use of the differential pressure testing of meters in conjunction with the proving operation.

The origin of this work went back to 1932 in an effort to determine the sources of slight proof changes which appeared in meters within a few months after installation. Following exhaustive tests they developed the procedure of fixing the position of the tangent post before the meter went to the prover and required proof adjustment with not more than two thirds of a revolution of the adjusting nuts.

Meter Testing

In these studies the essential elements which were found to influence the differential pressure results were the valves, the center box packing, lost motion and the weight of diaphragm leathers. Mr. Richey described the equipment used and by chart illustrations showed seven characteristic curves for friction appearance at various points of the meter. The question of diaphragm leather weight, proper diaphragm stroke setting and elimination of changes in the stroke setting were fully discussed. It was emphasized that the differential test offered an all inclusive test on the condition of the meter with definitely favorable opportunities for the improvement of meter performance, standardization and improvement of meter repair work and a valuable avenue of approach to many important related problems of correct gas measurement.

The next subject discussed involved the experience of various gas companies in the use of Vulcan material as a substitute for gas meter diaphragm leather. A number of those present have had meters with Vulcan diaphragms in service for two or three years and report varying characteristics of performance primarily in regard to meter registration and internal deposits. Progress along the lines of determining the effectiveness of this material for gas meter diaphragms is being made, and all present were urged to further report their experiences in this important field.

Other subjects involving meters which were discussed, included practices for test period determination (years in service vs. index reading), composition material for meter valves, spray painting equipment and shop practices.

The discussion then turned to regulators where the following points were discussed at length: Composition diaphragms for regulators, the practice of periodic testing of regulators, the proper methods of eliminating freezing troubles.

The discussion then returned to the testing of large displacement meters, including methods, equipment and period of test. The importance of comparatively frequent periodic tests on large meters was stressed.

These summaries, which were given on Thursday afternoon, afforded those who could attend but one of the luncheon conferences and were necessarily forced to miss the other two, a glimpse of the subjects covered. Regret was expressed that it had been found impossible to so arrange the schedule that every one could attend each of the luncheon conferences. As in previous years, efforts were made to keep the groups to a size that would bring out free discussion.

The first regular Distribution Conference session, with C. H. Waring, chairman of the Distribution Committee presiding, was held on Wednesday morning, May 8. At this session a paper was given by G. J. Heckendorn, gas distribution engineer, Public Service Co. of Colorado, Denver, Colo., on the subject of "Distribution Design for Heavy Househeating Loads." Mr. Heckendorn reviewed the principles of the "Doherty Ideal Distribution System" and also other systems of distributing gas. The operations of the system at Denver was described as an example of the means of serving economically by use of house regulators a system having a considerable amount of house heating load. Mr. Heckendorn's paper was well illustrated by curves, charts and tabulations.

There followed a paper by Lee Holtz, general superintendent of distribution, Southern California Gas Co., Los Angeles, Calif., on "Design of a Distribution Network." Mr. Holtz described the factors taken into consideration by the Southern California Gas Company's engineers in designing its gas distribution system.

The influence of low cost housing on the gas and electric utilities was ably discussed by G. H. Boyd and E. G. Watkins, Consolidated Edison Co. of New York, Inc., New York, N. Y. This paper brought out the factors which affect the utility when a large scale slum clearance project is undertaken by the Federal Housing Authority. The subject was of particular interest to men from localities where such activities are being planned. It was brought out that in these housing projects the cost of gas was included with the rental and that only one meter per building was required although the building might house several families.

C. F. Turner, acting chairman of the Subcommittee on Pipe Coatings and Corrosion, gave his report at this session.

The second Distribution Conference session opened on Wednesday afternoon with C. H. Waring again presiding. The first paper was given by H. L. Masser, executive vice-president, Southern California Gas Co., Los Angeles, Calif., on the "Use of Pressure Regulators on Gas Appliances." Mr. Masser's paper attempted to cover all of the objections as well as the advantages of a requirement that all gas appliances be equipped with a pressure regulator. This paper was very ably discussed by several men, and considerable general discussion pro and con in regard to pressure regulators on gas appliances was brought out.

Lee Holtz, Southern California Gas Co., made his second appearance on the program with an interesting paper on "Tool Control."

R. M. Conner, director, A. G. A. Testing Laboratories, Cleveland, Ohio, gave a very instructive paper on the "Limits of Flexibility of Gas Appliances Operating on Natural Gas." Mr. Conner brought out the fact that there is wide variation in composition of natural gas which may be obtained from various parts of the country and even from wells in the same general locality. The influence of these variations on the performance of natural gas burners was discussed and illustrated in Mr. Conner's paper. The principles affecting the interchangeability of various natural gases and others were discussed at length by Mr. Conner in this paper which is a very valuable contribution on this subject.

At this session A. W. Fuller, chairman of the Subcommittee on Meters and Metering, gave his annual report.

Mr. Travis, of the Consolidated Edison Co. of New York, Inc., New York, N. Y., gave a report of the Subcommittee on Cast Iron Pipe Standards, representing C. C. Simpson, chairman, of the same committee.

Corrosion Problems Discussed

The Thursday morning Distribution Conference session was largely devoted to a discussion of three separate phases of the underground pipe corrosion problem. The first phase was a review of some original research work conducted during the past year by Dr. Scott Ewing, A. G. A. Research Associate on Corrosion. In a paper entitled: "Determination of the Current Required for Cathodic Protection," Dr. Ewing described laboratory experiments which give a clew to a possible solution of a very important economic problem: how to attain the complete protection from corrosion of an underground pipe line at a minimum of power cost.

In the absence of definite knowledge of the minimum current densities required it has been customary to apply densities believed to be in excess of those actually

Production and Chemical Conference Held

The joint Production and Chemical Conference sponsored by the Technical Section of the American Gas Association, which took place May 20-22 at the Hotel Pennsylvania, New York, N. Y., was held too late to cover in this issue of the A. G. A. MONTHLY. An account of the conference will appear in the next issue.

needed with the hope that complete stoppage of corrosion would result. The method worked out by Dr. Ewing and described by him involves the determination of the so-called "protective current," i.e., that current which prevents leaks. He has found that when current densities in excess of the protective value are applied to a pipe line, the logarithmic current density-potential curve becomes a straight line and is then known as an "over-voltage" curve. The current density at which the over-voltage curve begins is the minimum current density which will prevent corrosion.

Application of the laboratory technique to operating pipe lines being cathodically protected is the next step in the investigation and will show whether the method has practical value in the field.

Bacterial Action on Pipe

The next paper in the group introduced a subject entirely new to the listening audience—corrosion of pipe through bacterial action. Raymond Hadley, an engineer for the Susquehanna Pipe Line Company, Philadelphia, presented a paper bearing the ominous title: "Studies in Microbiological Anaerobic Corrosion." Mr. Hadley described in a very interesting fashion the manner in which certain forms of bacteria present in heavy, wet soils can and do bring about severe corrosion of steel pipes laid through these areas. These bacteria, called "anaerobic," meaning "in the absence of oxygen," during the course of their metabolism have the ability to reduce soil sulphates to sulphides. These sulphides readily react with steel, producing severe corrosion and evolving hydrogen. The corrosion is characterized by "slabbing" rather than by pitting.

The test for the presence of anaerobic bacteria is easily made. Hydrochloric acid added to a sample of the soil suspected of containing these bacteria will produce hydrogen sulphide (strong rotten egg odor) if they are present.

The only known remedy at the present time is to place the pipe on blocks (tile or porcelain is recommended since wood provides food for the bacteria) and completely encase it in asphalt or pitch. There is some reason to believe that the application of cathodic protection to pipe may kill the bacteria or inhibit their activities.

Mr. Hadley concluded his interesting story by showing a movie of pipe lines in their system which had been attacked by anaerobic bacteria. The movie left no doubt as to the seriousness of this form of corrosion.

The third and last paper on corrosion was of particular interest to distribution engineers. Robert J. Kuhn, a consulting engineer in New Orleans, read a paper entitled: "Electrolysis and Soil Corrosion Work on Gas Distribution Networks in Cities." Mr. Kuhn traced the history of the application of stray railway current to the cathodic protection of the gas network in New Orleans; he is credited with being the originator of this use of stray railway current.

He illustrated with a film showing typical conditions which made the laying and protecting of pipe very difficult.

It was brought out in the paper that no leaks have been discovered in the New Orleans distribution system since the use of cathodic protection. The New Orleans Public Service Company operates the gas, electric and railway utilities in New Orleans.

A paper by W. R. Wood of the Girdler Corporation, Louisville, Kentucky on the "Treatment of Sour Gas" completed the morning's session. The fact that the room was well filled and few people drifted away attested the interest always shown in those papers dealing with problems resulting from corrosion, even though these papers are necessarily technical and involved.

The fourth and final session of the Distribution Conference was held on Thursday afternoon with L. W. Tuttle, vice-chairman of the Distribution Committee, presiding. K. R. Knapp, chief engineer, A. G. A. Testing Laboratories, Cleveland, gave a talk illustrated by lantern slides on the "Laboratories Study Boltless Couplings." E. G. Campbell, chairman, Subcommittee on Pipe Joints and Pipe Materials, gave the annual report of that committee.

After the summary reports of the luncheon conference chairmen, which have been mentioned previously, H. W. Geyer, utilization engineer, Southern Counties Gas Co., Los Angeles, Calif., discussed the subject of "Ordinances Regulating the Installation of Gas Appliances." Mr. Geyer brought out the lack of general uniformity of ordinances between cities scattered over the various states and recommended that before any town proceeded to adopt ordinances

(Continued on next page)

Distribution Engineers Pay Tribute to F. M. Goodwin on Retirement

F. M. Goodwin receiving the well wishes of his fellow officers on the occasion of his retirement as senior vice-president of the Boston Consolidated Gas Company. On the left is E. M. Farnsworth, president of the company, and F. D. Cadwallader, vice-president, is standing by.

ONE of the memorable events of the Distribution Conference was the presentation by Walter C. Beckjord, president of the American Gas Association, in behalf of the past chairmen and members of the Distribution Committee, of a gift to Fred M. Goodwin, chairman of the Technical Section. Mr. Goodwin retired on May 1 from active duty as vice-president in charge of distribution of the Boston Consolidated Gas Company, a position he had held for many years.

President Beckjord recalled his pleasant personal association with Mr. Goodwin, both in the company and in many active years of Association work. In response, Mr. Goodwin modestly expressed his appreciation for the high compliments paid him and pledged his continued interest in the work of the Distribution Committee and the Technical Section.

As one of the "charter" members of the Distribution Committee, Mr. Goodwin has put in long years of active service and made valuable contributions to its work.

Mr. Goodwin began his career in the gas industry as a clerk in the main department of the Boston Gas Light Company in February, 1896. In 1898 he was made inspector of street openings; in 1899, a subforeman of the Dorchester Gas Light Company; from 1900 to 1905, superintendent of the Brookline Gas Light Company.

Two years after the formation of the Boston Consolidated Gas Company, he was transferred back to Boston and in 1914 made superintendent. In 1919 he became engineer of distribution and in 1922 was elected vice-president in charge of distribution.

Elsewhere in the gas industry, as in his company and the American Gas Association, he has held many posts of honor. In the New England Gas Association he has been director of the operating division, a member of the board of directors, vice-president and president in 1934.

He has been active in company employee affairs and his advice and guidance has often been solicited. One of his outstanding employee interests was the Company Band of which he was honorary president and drum major since its organization in 1933.

Outside interests included membership in both the Boston and Newton Chambers of Commerce, the Engineers' Club, the New England and International Fire Chiefs' Association. He is a thirty-third degree Mason and a member of the Ancient and Honorable Artillery.

Natural Gas Research Covered in Report

OIL and gas operators, and others who are interested in the unique gas, helium, will find items of interest in a report issued by the Bureau of Mines, U. S. Department of the Interior, covering the work of its Petroleum and Natural Gas Division in the fiscal year ended June 30, 1939.

In this annual "stock taking" of the bureau's research and operations dealing with petroleum, natural gas, helium, and their conservation, the authors recognize that public interest in the products from oil and gas wells reaches far beyond persons concerned directly with the techniques of their production, transportation, and refining. Accordingly the report has been written to inform consumers, as well as engineers, research workers, and operating personnel of the industry, concerning the types of studies that are being pursued by the Bureau.

Copies of Report of Investigations 3501, Annual Report of the Petroleum and Natural Gas Division, Fiscal Year 1939, by R. A. Cattell and others, may be obtained without charge upon request to the Information Division, Bureau of Mines, Washington, D. C.

DISTRIBUTION CONFERENCE

(Continued from page 237)

regulating installation of gas appliances, a thorough study be made of the subject and the experience of other towns obtained. Mr. Geyer recommended that a study of the codes and ordinances compiled by the U. S. Bureau of Standards be made.

The fine hospitality shown by the natural gas people of the Southwest in general and of the Natural Gas Section of the Association in particular was greatly enjoyed. Distribution engineers from all parts of the country who were fortunate enough to attend the conference returned home to their every-day tasks with the benefit of inspiration and information which they gained at Houston.

INDUSTRIAL SALES CONFERENCE

(Continued from page 233)

Ten Basic Points in Selling Industrial Gas

The ten "Points in Selling Industrial Gas" proposed by L. S. Reagan, Webster Engineering Co., Tulsa, included: (1) management must be sold on the value of industrial load, (2) industrial department heads must be able to talk to the business executive, (3) engineers must know other fuels than gas, (4) industrial salesmen must be paid a wage sufficient to get and hold the best, (5) your fuel must not be "oversold," but sold only insofar as facts and future developments can bear out your claims, (6) only the best equipment should be recommended, (7) proposals must be carefully checked so that they will not later embarrass you, (8) proposals should be neat, concise, well illustrated and bound, (9) do not neglect the intangibles of cleanliness, increased production, improvement of product, etc., and try to arrive at definite figures for them, and (10) be cautious in emphasizing labor-saving features—they may be a boomerang.

Mr. Reagan further outlined in detail the various steps involved in making a big boiler sale and offered forms for conducting detailed surveys of prospects' situations.

Advertising Is a Lot of Tripe—UNLESS It Helps To SELL

Wind-up speaker was Harry W. Smith Jr., American Gas Association, New York, who dissected photo-enlargements of actual examples of A. G. A. Industrial Gas Advertising and Publicity features—to demonstrate with chalk his premise that "Publicity and Advertising Is a Lot of Tripe . . . UNLESS it helps to SELL your product, your company, or your industry." Each step in making a sale by personal call was identified with its counterpart in "printed salesmanship" to show that the techniques of good advertising and publicity are not different from actual personal sales activity.

A new form was distributed to make possible a more "sales-effective" publicity handling of industrial gas utilization case-histories and news from the territories of those in the audience. And it was shown that the Industrial Gas Section's publicity and advertising programs are so extensive that "every time you make a sales call, an industrial gas customer or prospect in your very own territory reads an A. G. A. ad or publicity story in his own trade paper—and that ad or publicity story is *designed specifically to help you sell.*"

Winding up the meeting in bedlam, Mr. Smith clanged a prize-ring bell to show the rate (in seconds) at which A. G. A. industrial gas publicity and advertising was sold. In noise he demonstrated that "a customer or prospect for industrial gas *reads a printed* sales talk or *hears* a *personal* sales talk every 0.65 seconds of the working day—and that, gentlemen, is how fast we're selling industrial gas today!"

New Bulletin Covers Research on Water Heaters

FOR several years the American Gas Association through its Committee on Domestic Gas Research has carried on a program of basic research on domestic gas appliances with the object of making available technical data that could be employed by gas appliance manufacturers and engineers in improving efficiencies and other performance characteristics of such equipment. On May 22, 1940, "Fundamentals of Domestic Gas Water Heating," Bulletin No. 9, was published and distributed to gas company and water heater manufacturer company members of the Association.

This bulletin includes results of research on gas water heaters designed for domestic use, conducted at the Testing Laboratories. It is one of a series of four bulletins summarizing the investigational work for the Committee on Domestic Gas Research, of which F. J. Rutledge, vice-president, The United Gas Improvement Company, is chairman.

Two of these bulletins, Nos. 7 and 8, cover gas ranges and No. 10 deals with design of atmospheric gas burners. Bulletin No. 7 was published several years ago and bulletins Nos. 8 and 10 will be distributed as soon as they have been released for publication by the Committee on Domestic Gas Research. This constitutes one more step in the industry's broad program of research.

Representing the culmination of research extending over approximately three years, Bulletin No. 9 on Fundamentals of Domestic Gas Water Heating covers comprehensively a large number of subjects relating to design, selection, and installation of water heaters. A chapter on heat losses from external surfaces of automatic types of water heaters, summarizes results obtained from different types of insulation materials commonly used. Some of the factors involved are the type, thickness, and density of insulation.

Of vital importance in the design of automatic storage gas water heaters are the combustion chambers and flueways. These factors are fully discussed in Bulletin No. 9 and include results showing the effect of combustion chamber and flue design on heat transfer characteristics.

Three other chapters dealing with heat losses through piping and heat traps attached to water heaters, standby losses and service efficiency of automatic storage water heaters round out this bulletin. It includes such information as methods for selection of proper sized heaters for given hot water requirements and optimum service which will afford better gas service to consumers.

Copies of Bulletin No. 9 are available at the American Gas Association Testing Laboratories, 1032 East 62nd Street, Cleveland, Ohio. It is hoped that results of this investigation will be widely employed to the best advantage in the interest of developing domestic gas water heating service to even more economical and satisfactory levels.

Sales Strategy

A wise salesman never tries to sell to a woman; he helps her to *buy.*

Laboratories

N. T. SELLMAN, *Chairman, Managing Committee*
R. M. CONNER, *Director*
W. H. VOGAN, *Supervisor, Pacific Coast Branch*

R. M. Conner Honored for 15-Year Service as Laboratories' Director

EMPLOYEES of the American Gas Association Testing Laboratories staged a surprise banquet for their director, R. M. Conner, at the Statler Hotel in Cleveland on May 3 in honor of his service in organizing and directing the Laboratories for 15 years. Believing he was attending a banquet to celebrate the close of a successful bowling season, Mr. Conner was unaware of the nature of the occasion until it was announced by the toastmaster following the dinner.

Mr. Conner was presented with a beautiful bronze desk set by the Laboratories' staff, including an 8-day clock and barometer mounted on a base with 2 life-time pens, desk pad, calendar, ash tray, etc., along with a leather bound scroll signed by all members of the staff and carrying the inscription:

"We, the employees of the American Gas Association Testing Laboratories wish to take this means of paying tribute to you who organized and have continuously directed our Laboratories since their inception fifteen years ago today. We add our respect and admiration to that of the gas industry generally, for your ability and the outstanding contribution you have made to our industry and to the betterment of the public service it renders."

Congratulatory Messages

In order to prevent Mr. Conner from knowing about the plans in advance, only a few outside of the Laboratories' employees were told of the arrangements being made. Walter C. Beckjord, president, and Major Alexander Forward, managing director of the Association, unable to be present, sent congratulatory messages. Frank H. Adams, president, Association of Gas Appliance and Equipment Manufacturers; Kurwin R. Boyes, secretary, American Gas Association, and Eugene D. Milener, secretary, Industrial Gas Section, attending the banquet as guests of the Laboratories' staff, complimented Mr. Conner very highly on his accomplishments of the last 15 years as head of the Testing Laboratories.

Mr. Adams in his address, complimented Mr. Conner and the Laboratories on the fine work they had done for the industry during the past fifteen years, stating that not only he, but manufacturers of appliances and equipment generally had a warm feeling of friendship for Mr. Conner and a high regard for his ability and his accomplishments in organizing and directing the Laboratories.

Mr. Beckjord in his letter to Mr. Conner, which was read at the banquet, stated in part:

"I wish to offer my own sincere congratulations to Ray Conner upon fifteen years' completion of service as director of the A. G. A. Testing Laboratories in Cleveland. In my opinion he is the one man in the industry who could accomplish what he has, because it has taken not only great technical and chemical knowledge, but a high order of executive ability and great tact, and the ability to co-ordinate not only the utilities but the manufacturers as well."

In his message to Mr. Conner congratulating him on his fifteen years of service, Major Forward wrote:

"Congratulations to Raymond M. Conner upon completion of fifteen years' distinguished service as director of American Gas Association Laboratories. His contributions of technical knowledge and skill, of executive ability and of comprehension of the problems of gas companies and manufacturers have been outstanding and above all he has won and retained the confidence of all elements in the industry in the fairness and impartiality of Laboratories operations."

A note of levity was added to the occasion in a satirical letter from Charles W. Person. Other messages were received from Harry W. Smith, director of industrial publicity, and the Pacific Coast Branch Testing Laboratories staff. Among the speakers representing the various departments of the Laboratories were F. E. Vandaveer, assistant director; F. R. Wright, chief inspector; K. R. Knapp, chief engineer; F. O. Suffron, assistant chief testing engineer; W. R. Teller, chief research engineer; Mrs. Viola Moore, acting head of the stenographic department, and M. E. Ward. K. H. Flint, assistant chief testing engineer, was toastmaster.

Pipe Line Builder Dies

BYRON E. HEPLER, president of the Hope Engineering Company, New York, died in Houston, Texas, May 11. Mr. Hepler's firm had built gas and oil pipe lines for major companies for the last 34 years. He was a long-time member of the American Gas Association.

Natural Gas Makes Topeka Clean

ARTHUR J. CARRUTH, managing editor of the *Topeka State Journal*, writing in his regular Saturday column "Under the Whispering Willow," April 20, said the following about natural gas in Topeka:

"Topeka is an unusually clean town—the large number of natural gas users make it so. Laundry men tell us shirt collars soiled by soot smudge are unusual."

A photomontage shows various scenes at the banquet held in Cleveland, Ohio, in honor of R. M. Conner, director of the A. G. A. Laboratories.

Gas Holder Inspection in California

THE Railroad Commission of California has issued General Order No. 94 (Case 4380) effective April 1, 1940 which establishes and prescribes a uniform procedure for the design, operation, maintenance and inspection of all gas holders and hydrocarbon vessels operated by public utilities in the State of California.

All of the provisions of this order are mandatory except where, in certain instances, it expressly appears that such provisions are but recommendations conforming to good engineering practice. The requirements contained are to be considered as minimum and any utility may adopt additional safety rules and practices provided they are not inconsistent with the provisions of the order.

The order recommends adherence to the latest procedure of the American Gas Association for the purging of holders as covered in its bulletin "The Purging of Gas Holders." It also provides that certain requirements shall be observed with respect to design, construction and installation of holders or vessels after the effective date of the order.

The Honorable Henry G. Mathewson, secretary of the Commission, now requests that all copies of the original issue of the order shall be destroyed and replaced by the revised General Order No. 94 containing changes in Section 4, Operation and Maintenance, (a) General (12) prescribing rules for the installation of aviation warning beacons on holders.

Camera Expert

GEORGE S. HAWLEY, president of The Bridgeport Gas Light Co., is a man of versatile talents—one of which is an aptitude for photography. One of his most recent photographs, a beautiful, illuminated night view of the United States Chamber of Commerce building in Washington, D. C., adorned the cover of the program and menu for the twenty-eighth annual dinner of the Chamber held at the Willard Hotel on May 2. Mr. Hawley is a director of the national Chamber of Commerce.

DEPRECIATION IN RELATION TO INCOME TAXES

(Continued from page 227)

a proportion of the cost of manufacturing or performing services as it does in utilities, the determination of proper depreciation allowances becomes a major problem of management.

Of what use are the complex systems of accounts which provide for the recording and checking of wages, taxes, supplies, etc., if the wages of fixed capital, in many instances the largest charge of all, do not receive a like amount of study and control. Since the determination of a profit or a loss can hinge upon depreciation allowances, the Bureau has recognized the importance of this problem by the development of an extensive set of principles and practices which have been incorporated into the Regulations. The requirements of the Bureau in this respect, as discussed in this paper, may be briefly summarized as follows:

1. Deductions for depreciation may be taken to recover the cost (capital outlay) or other basis of tangible property and other assets which gradually approach a point where their usefulness in the trade or business is terminated.

2. The allowance must be confined to property which is used in the trade or business. (Idle plant temporarily out of use is regarded as an asset used in the trade or business.)

3. A reasonably consistent plan or method should be followed in computing depreciation deductions.

4. The depreciable capital sum is the cost or other basis of the property, less expected salvage.

5. The current deduction is determined by spreading the "adjusted basis" ratably over its estimated useful life or over units of production.

6. The "adjusted basis" is the unrecovered cost (or other basis) of any depreciable property.

7. Losses on ordinary retirements are not allowed where average rates are applied, except that:

(a) losses on retirements for causes not contemplated in fixing the depreciation rate may be allowed;

(b) losses on retirements are allowed in cases where the depreciation rate is based on the longest lived asset in the account.

8. The burden of proof of the correctness of the deduction is placed upon the taxpayer.

Respectfully submitted,

American Gas Association-General Accounting Committee Subcommittee on Depreciation in Relation to Income Taxes

James Comerford, Chairman
Robert M. Campbell
J. C. Chisler
W. H. Goforth
Andrew J. Newman
S. J. Ratcliffe
W. G. Rogers
B. H. Shaner
Joseph F. Weeks

TRANSMISSION AND PRODUCTION MEETINGS

(Continued from page 208)

Texas, was presented by C. K. Eilerts and R. Vincent Smith, U. S. Bureau of Mines, Bartlesville. The meeting closed with an important discussion of "Distillate Fields in the Gulf Coast" by Dr. R. L. Huntington, director, and Charles D. Schmidt, graduate student, School of Chemical Engineering, The University of Oklahoma, Norman.

Both the production and transmission sessions were well attended and many side lights were covered in informal discussions.

Personnel Service

SERVICES OFFERED

Executive or assistant, dependable, good judgment, diversified experience, management. Twenty years' gas utility experience, natural and artificial, **operation** and **sales**. Some civil engineering experience. (45.) **1362.**

Graduate mechanical engineer, fifteen years' experience in **gas utilization field.** Superintendent large manufactured gas company testing laboratory for many years and for past five years connected with domestic and hotel equipment manufacturer in responsible position. Thoroughly familiar with utility and manufactur.ng side of appliance design and performance. (38.) **1363.**

Development Engineer well versed in the design of appliances, controls and safety devices. Experience in the sales application of equipment furnishes a well balanced knowledge of manufacturing and sales problems. **1364.**

Research Engineer, 13 years' chemical and physical laboratory experience on pipe coatings, corrosion, gums, paints, metals, water, oils, coke—all materials used in production and distribution and utilization of gas plus gas plant control and research. Graduate Chemical Engineer, married (36). **1366.**

Mechanical Engineering graduate with 15 years' experience in practically all phases of **engineering** and selling **industrial** oil and **gas** burners and industrial furnaces. Can locate anywhere and prefer inside work rather than full time district sales. **1367.**

Manager of gas property, available through sale of property, is seeking position as **manager** of **gas,** electric, telephone or **combination** property. Thoroughly experienced building, maintaining, operating and managing all three. Glad to arrange conference. **1368.**

Valuation Engineer with background of general engineering, including purchasing. Twelve years with three of the best known consulting engineering firms on utility and industrial inventories and appraisals; last two years on tax cases. **1369.**

Engineer—laboratory and installation tests for safety, performance and servicing, domestic and industrial appliances, for various gases. Engineering new product; study cost of equipment in use. Previous experience in laboratory, and engineering teaching. **1370.**

Gas engineering graduate, (30) married, now employed. Nine years **coke oven** plant **operating** experience. Desire connection in capacity where this experience would be valuable. **1371.**

General advertising and **public relations** man is at present employed by a midwestern gas and electric utility. Seeks connection with utility in specialized utility advertising. Present employer knows of this advertisement. Has 12 years of newspaper editorial and advertising experience and agency background. University trained. **1372.**

Dealer relations representative—gas. Capable of initiating program covering all phases of dealer contacts—calls, messages, meetings (plumber—dealer—salesman). Sales promotion, display, and home service department activities experience. Dealer viewpoint developed through previous department store connections. (45)—married. **1373.**

1940 Advisory Council

F. M. BANKS.....Los Angeles, Calif.
C. E. BENNETT.....Pittsburgh, Pa.
C. W. BENNETT.....Detroit, Mich.
HALE A. CLARK.....Detroit, Mich.
H. E. CLIFF.....Newark, N. J.
H. C. COOPER.....Pittsburgh, Pa.
HUGH CUTHRELL.....Brooklyn, N. Y.
W. E. DERWENT.....Rockford, Ill.
MERRILL N. DAVIS.....Bradford, Pa.
H. A. EHRMANN.....New York, N. Y.
H. L. FARRAR.....San Francisco, Calif.
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